

ANNUAL REPORT
OF THE
RECEIPTS AND EXPENDITURES
OF THE
TOWN OF BRAINTREE,

FROM
FEB. 1, 1893, TO DEC. 30, 1893,

TOGETHER WITH THE
Report of the Board of School Committee,
ENGINEERS OF FIRE DEPARTMENT
WATER COMMISSIONERS, AND MANAGER OF ELECTRIC
LIGHT PLANT.

PRINTED BY ORDER OF THE TOWN.



REPORTER JOB PRINT:
WEYMOUTH AND BRAINTREE PUBLISHING CO.
1894.

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TOWN OFFICERS.

Clerk.

SAMUEL A. BATES.

Treasurer.

PETER D. HOLBROOK.

Selectmen, Assessors and Overseers of the Poor.

ANSEL O. CLARK, J. FRANKLIN BATES, JOHN V. SCOLLARD.

Water Commissioners and Trustees of Sinking Funds.

JAMES T. STEVENS, T. HAVEN DEARING, JOHN V. SCOLLARD.

School Committee.

THOMAS A. WATSON,
ANNE M. BROOKS,
CARRIE F. LORING,

SAMUEL C. BRIDGHAM,
HENRY L. DEARING,
ALBION C. DRINKWATER.

Trustees of Thayer Library.

ASA FRENCH,
FRANCIS A. HOBART,

HENRY A. JOHNSON,
E. WATSON ARNOLD,
NATHANIEL H. HUNT.

Fence Viewers.

FREEMAN G. CROSBY,

L. WILLARD MORRISON,

ALBERT HOBART.

Superintendent of Streets.

JOHN V. SCOLLARD.

Constables.

HORACE FAXON,
WM. HILL,
ALBERT HOBART,
ROB'T M. LORING,

JAMES R. QUALEY,
BENJ. J. LORING, Jr.,
JOHN KELLEY,
J. A. REYNOLDS.

Auditors.

DANIEL POTTER,

L. WILLARD MORRISON,
CHARLES G. SHEPPARD.

Collector of Taxes.

NATHANIEL F. HUNT.

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REPORT

OF THE

SELECTMEN, ASSESSORS, AND OVERSEERS OF THE POOR

OF THE

Town of Braintree.

The Selectmen, Assessors] and Overseers of the Poor respectfully present the following report of the respective departments of the Town, from Feb. 1, 1893, to Dec. 30, 1893, inclusive.

CHANGE IN THE FINANCIAL YEAR.

At the last annual meeting the town passed a vote that the financial year be closed on Dec. 31, instead of on Feb. 1, as heretofore. The wisdom of this action is clearly apparent. The report for the present year therefore includes the expenditure for but eleven months.

OFFICE FURNISHINGS.

At the beginning of the year, for the purpose of facilitating the transaction of business, the office of the board was refurnished at an expense of \$170.

This included the purchase of a cashier's desk, a roll-top desk, and a suitable rail to enclose the business quarters of the town officials. We believe that the change in the office has been found beneficial to the public having business in the office as well as to the selectmen.

ELECTRIC STREET RAILWAY.

The Braintree Street Railway Co., a corporation holding a franchise by vote of the town, to construct and operate an electric railway, applied for an extension of its franchise, it having expired on Oct. 15 of this year. An extension was granted to June 15, 1894, the company giving satisfactory evidence that it intended to prosecute the work to completion.

When this road is being constructed the utmost care should be taken by the selectmen so that the streets may be left in a good condition. As far as the work has progressed during the present year, the engineers of the company have shown a disposition to do a thorough job, and interfere as little as possible with the street travel.

POOR DEPARTMENT.

The expense of this department is substantially the same as in previous years. The unusual depression in business will undoubtedly augment the expense of outdoor poor during the present year.

ALMSHOUSE.

As an incentive to a display of neatness by private parties about their grounds, we believe that all buildings and grounds owned by the town, should be well and neatly kept. We would suggest that the town make a small appropriation for the purpose of making smooth the land in front of the almshouse. Although this building has been constructed over ten years the grounds are in a rough and unsightly condition, and compare unfavorably with the appearance of the structure itself. We recommend the appropriation of two hundred dollars for this purpose.

ASSESSMENT OF TAXES.

A reassessment of all the property of the town has been made during the present year. While a substantial gain has been made in real and personal property, the loss by the division of the Estate of Sarah W. Glover amounting to \$300,000 makes rather an unfavorable exhibit. The town also made a loss in corporation and

bank tax on account of the sale of securities by the Glover estate. This loss coupled with the fact that the appropriations were larger than in previous years necessitated an advance in the tax rate to 16.80 per thousand.

SUITS AGAINST THE TOWN.

The suit of Henry Gardner for payment for services as an expert witness in the water suit has been settled by the payment of \$100.00. As the amount claimed was \$150, and the expense of suit would equal that sum we believe it the most economical solution of the matter.

In accordance with the vote of the town the claim of Stevens & Willis for damages sustained by the taking of the water of Little Pond has been settled by the payment of one thousand dollars.

The claim of the Estate of Sarah W. Glover for mill damages is in process of settlement, and will doubtless be adjusted without any legal expense.

The trustee of the estate of Wm. S. Perry has signified his intention of contesting the assessment of the personal property belonging to this estate. This tax was assessed upon personal property, returned to the probate court as belonging to the beneficiaries who are residents of this town, and taxable by us. The statement under which we assessed the tax was sworn to by the trustee of the estate. It does not appear by the statement of the trustee that this estate was assessed in any locality, but until the present year was allowed to escape taxation. The estate has engaged the services of Geo. R. Swasey, Esq., who proposes to contest the assessment on the grounds that the law under which the tax was assessed is unconstitutional. The town has placed the case in charge of Henry A. Johnson, Esq., of this town.

HIGHWAYS AND BRIDGES.

The method of building and repairing highways has been substantially the same as for the past few years. A member of the board has been appointed superintendent, and the work has been

superintended by each member of the board in his respective section.

Better results may follow the engagement of a superintendent who would devote his whole time to the work ; this of course would necessitate an appropriation for salary.

HEALTH.

By provision of law in towns not having a Board of Health, the selectmen act as such, having all the authority bestowed upon such board. As the town is becoming more densely populated, stricter attention should be paid to the sanitary conditions. In some sections defective drainage is doubtless the prolific cause of diphtheria, scarlet fever and kindred diseases, and stringent efforts should be made to effect a remedy.

Fumigation of infected premises should be effected thoroughly, and patient and attendant should be isolated as much as possible.

We believe that the carrying of curtains or canopies from house to house as is sometimes the custom of funeral undertakers is a frequent source of contagion, and the practice should be discountenanced.

ELECTRIC LIGHTING SYSTEM.

Mr. Thomas A. Watson has remained in charge of the plant as manager, serving free of charge. His report will be found in this volume. We are satisfied that the system is managed efficiently, and that the town has been fortunate in the supervision of the plant.

HOUSE LIGHTING.

The house lighting system has been put in operation during the present year. This has been in charge of a special committee whose report will be found in this volume. The loan for this purpose has been taken by the Trustees of the Water Loan Sinking Fund. As a matter of public record we publish the following correspondence in reference to the status of the private lighting enterprise, carried on in the north section of the town.

FRANCHISE GRANTED.

BRAINTREE, MASS., September 20th, 1889.

To the Selectmen of the Town of Braintree, Mass.

We the undersigned respectfully petition your Honorable Board for a permit allowing us to pass a wire over the public streets to connect our residences with a dynamo to be placed in the mill of A. S. Morrison & Brothers, for the purpose of lighting our several places.

(Signed by)

A. S. MORRISON & BROTHERS,
AUBREY HILLIARD,
SAMUEL W. THORNDIKE,
A. C. DRINKWATER.

On the above petition it was voted :

That the above named petitioners be permitted to pass a wire over Adams, Elm, Myrtle and Middle streets for the above named purpose. Said wire to be twenty feet above the street.

(Signed by)

ANSEL O. CLARK,
NATHANIEL F. HUNT,
R. ALLEN GAGE,
Selectmen of Braintree.

A true copy, A. O. CLARK.

The selectmen applied in May, 1892, to the Board of Gas Commissioners that the above parties be restrained from exceeding the terms of their franchise.

COMMONWEALTH OF MASSACHUSETTS

BOARD OF GAS AND ELECTRIC LIGHT COMMISSIONERS.

No. 13 BEACON STREET, BOSTON,

December 22, 1893.

IN re-PETITION OF THE SELECTMEN OF BRAINTREE vs. A. S.
MORRISON & BROTHERS, ET AL.

Board of Selectmen of Braintree, Mass.

GENTLEMEN :—

On June 28th, 1892, this Board sent to the Attorney General of the Commonwealth a communication, a copy of which is enclosed and marked A.

On the 8th day of July, 1893, it received a communication from the Attorney General in reply, a copy of which is enclosed and marked B.

You will perceive from the enclosed communications that this Board has reported the matter to the Attorney General in pursuance with Section 12 of Chapter 314 of the Acts of 1885. This is, it seems, the only way in which this Board can proceed when there is a violation of law under Chapter 382 of the Acts of 1887, as amended by Chapter 274 of the Acts of 1892.

If your town desires a further action in the matter a consultation with the Attorney General and this Board would seem to be desirable.

Very respectfully,

JOHN. T. WHEELRIGHT,
Chairman.

Per J. T. LEARY,
Clerk.

(Enclosure A.)

June 28th, 1892.

Hon. Albert E Pillsbury, Attorney General.

SIR :—

The Board of Gas and Electric Light Commissioners hereby gives notice that Alvah S. Morrison, W. E. Morrison, Ibrahim Morrison, F. G. Morrison, R. E. Morrison, Samuel W. Thorndike, William W. Mahew, Dean Southworth, Aubrey Hilliard, Albion C. Drinkwater, A. H. Mills, Charles C. Cregg and G. W. Caldwell, all of Braintree, have violated the provisions of Section 3, Chapter 382, Acts of 1887, and of Section 1, Chapter 274, of the Acts of the year 1892, by the erection and maintenance by said persons of wires across the streets of Braintree for the purpose of carrying on the business of furnishing electricity for light, without the consent of the selectmen of Braintree.

This notice is given in pursuance of Section 12, Chapter 314, of the Acts of 1885 and Section 2, Chapter 382 Acts of 1887.

By order of the Board.

(Signed)

WALTER S. ALLEN,
Clerk.

(Enclosure B).

June 8, 1893.

*To the Honorable the Board of Gas and Electric Light
Commissioners.*

I regret that through inadvertence your communication to me relating to the complaint of the Selectmen of Braintree to your Board, that certain persons have erected electric lighting wires in

the streets of Braintree without authority, has never been brought to my personal attention until this time.

If these wires constitute an obstruction of the streets in the sense of the law, or if they materially affect or impair the public safety and convenience in travel, I know of no reason to doubt that it is within the powers of the local surveyors of highways to remove them; and there are expressions in some of the latter decisions of the court indicating that electric lighting wires may be so regarded. It is a general rule of law, applicable to these cases, that the court will not interfere if there is an adequate remedy in the hands of the local authorities; and as a rule, therefore, it is held inexpedient by the occupants of this office to proceed in such a case. And if this were not so, I doubt if any Attorney General would regard the unlawful erection of an electric lighting wire in any part of the state as a sufficient violation of the public right to call for his interference by proceedings in court. So far as it is desired to remove these wires for the purpose of preventing or avoiding competition with an existing electric lighting company, it is clearly not the duty of the Attorney General to interfere *ex-officio*. If the case is within Chapter 382 of the Acts of 1887, as amended by Chapter 274 of the Acts of 1892, your Board, as you are aware, is at liberty to proceed in it if it is considered of sufficient importance to make it your duty so to do, but from your present communication I do not infer that you have so determined the matter.

Very respectfully, your obedient servant,

(Signed)

A. L. PILLSBURY,
Attorney General.

Appended will be found itemized accounts of the several departments.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,

Selectmen, Assessors and Overseers of Poor of Braintree.

SCHOOLS—PAY OF TEACHERS.

Appropriations	\$12,300 00
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HIGH SCHOOL.

Paid, Charles E Stetson, teaching 20	
weeks	\$600 00
Oliver R. Cook, teaching 16	
weeks	520 00
Carrie M. Bassett, teaching 36	
weeks	540 00
Sarah W. Lane, teaching 36	
weeks	490 00

MONATIQUOT SCHOOL.

Paid Frank W. Brett, teaching 20	
weeks	\$450 00
Frank W. Brett, teaching 16	
weeks	400 00
Abbie A. Mills, teaching 20	
weeks	275 00
Abbie A. Mills, teaching $5\frac{7}{10}$	
weeks	68 40
Sarah M. Aldrich, teaching $19\frac{1}{5}$	
weeks	230 40
Susan A. O'Rourke, teaching 36	
weeks	432 00
Josephine B. Colbert, teaching	
36 weeks	432 00
E. Frances Hayward, teaching,	18 00
Emma J. Horne, teaching .	7 20
Julia Ellsworth, teaching 17	
weeks	169 60
Hattie F. Weeks, teaching .	86 40
<i>Amount carried forward . . .</i>	<hr/> \$4,719 00

<i>Amount brought forward</i> . . .	\$4,719 00
Sarah L. Arnold, teaching . . .	9 60
Carrie F. Spear, teaching music, . . .	347 50
Elizabeth J. Hilles, teaching drawing	202 10

UNION SCHOOL.

Paid Avis A. Thayer, teaching 20 weeks	\$225 00
Avis A. Thayer, teaching 16 weeks	192 00
Cora L. Beard, teaching 20 weeks	200 00
Hannah C. Whelan, teaching 20 weeks	200 00
Hannah C. Whelan, teaching 16 weeks	170 00
Mabel L. Bates, teaching 20 weeks	200 00
Mabel L. Bates, teaching 16 weeks	170 00
Anna K. McKella, teaching 16 weeks	160 00

POND SCHOOL.

Paid Sarah L. Arnold, teaching 20 weeks	\$225 00
Sarah L. Arnold, teaching 16 weeks	192 00
Alice C. Jenkins, teaching 20 weeks	200 00
Alice C. Jenkins, teaching 16 weeks	170 00
<i>Amount carried forward</i> . . .	<hr/> \$7,582 20

<i>Amount brought forward</i> . . .	\$7,582 20
Annie M. Brooks, teaching 20 weeks	200 00
Annie M. Brooks, teaching 16 weeks	170 00
Emily A. Lapham, teaching 20 weeks	200 00
Emily A. Lapham, teaching 16 weeks	170 00

IRON WORKS.

Paid Victoria P. Wilde, teaching 36 weeks	\$720 00
Mary L. Crowe, teaching 36 weeks	432 00
Nellie E. Bowles, teaching 20 weeks	200 00
Nellie E. Bowles, teaching 16 weeks	170 00
Helen A. Nevers, teaching 12 weeks	120 00
Mary E. Vining, teaching 8 weeks	80 00
Mary E. Vining, teaching 16 weeks	170 00

EAST SCHOOL.

Paid E. Frances Hayward, teaching 10 $\frac{1}{5}$ weeks	\$102 00
Mary E. Stull, teaching 17 $\frac{4}{5}$ weeks	178 00
Hattie F. Weeks, teaching 8 weeks	90 00
<i>Amount carried forward</i> . . .	<hr/> \$10,584 20

Amount brought forward . . . \$10,584 20

MIDDLE STREET SCHOOL.

Paid Estelle Robinson, teaching 36
weeks \$360 00

SOUTH SCHOOL.

Paid Margaret E. C. Bannon, teach-
ing 20 weeks \$275 00
Margaret E. C. Bannon, teach-
ing 16 weeks 230 00

WEST SCHOOL.

Paid Mary E. Vining, teaching 12
weeks \$120 00
E. Frances Hayward 92 80

Total salaries, teachers . . . \$11,662 00

PAY OF JANITORS.

Appropriation \$1080 00

Paid John H. Dinsmore, Monatiquot
School \$550 00
John H. Dinsmore, Union School 144 00
John Taylor, Iron Works School 144 00
Louis F. Bates, East School 20 00
Richard DeNeil East School 16 00
W. Witherell, Middle Street
School 36 00
Mrs. M. A. Holbrook, South
School 36 00
Elisha Saville, West School 22 00

\$968 00

FUEL FOR SCHOOLS.

Appropriation	\$1,000 00
Paid J. F. Sheppard & Sons, coal for Monatiquot school	\$768 84
A. J. Richards & Sons, coal for Monatiquot school	26 41
C. H. Potter, wood for Monati- quot school	43 80
J. F. Sheppard & Sons, coal for Union school	70 20
C. H. Potter, wood for Union school	5 40
J. F. Sheppard & Sons, coal for Pond school	76 93
M. L. Tupper, coal for Pond school	13 00
C. H. Potter, wood for Pond school	7 20
J. F. Sheppard & Sons, coal for Iron Works school	101 69
C. H. Potter, wood for Iron Works school	8 40
J. F. Sheppard & Sons, coal for East school	6 44
J. F. Sheppard & Sons, coal for Middle Street school	17 78
C. H. Potter, wood for Middle Street school	3 00
J. F. Sheppard & Sons, coal for South school	13 50
C. H. Potter, wood for South school	4 80
<i>Amount carried forward</i>	<u>\$1,167 39</u>

<i>Amount brought forward</i> . . .	\$1,167 39	
J. F. Sheppard & Sons, coal for West school	32 02	
C. H. Potter, wood for West school	3 60	
	<hr/>	\$1,203 01

SUPERINTENDENT OF SCHOOLS.

Appropriation		\$1,200 00
		<hr/>
Paid Irving W. Horne, salary, 11 months	\$1,100 00	
	<hr/>	\$1,100 00

CONVEYING PUPILS.

Appropriation		\$200 00
		<hr/>
Paid Old Colony Railroad . . .	\$214 47	
W. Witherell	10 00	
Albert A. Drollett	140 00	
	<hr/>	\$364 47

KINDERGARTEN SCHOOL.

Appropriation		\$2,000 00
		<hr/>
Paid Harriet M. Hill, teaching 27 weeks	\$216 00	
Charlotte M. Hobart, teaching 27 weeks	216 00	
Robertina B. Trask, teaching 16 weeks	180 00	
J. R. Carmichael, janitor . . .	27 00	
Asaph T. Arnold, janitor . . .	29 40	
Richard DeNeil, janitor . . .	16 00	
W. B. Hollis, conveying pupils .	95 00	
	<hr/>	
<i>Amount carried forward</i> . . .	\$779 40	

<i>Amount brought forward</i>	.	.	\$779 40
J. L. Hammett, supplies	.	.	260 96
N. E. Hollis, rent	.	.	112 50
Harriet M. Hill, supplies	.	.	23 83
T. W. Herrick, supplies	.	.	4 75
J. M. Arnold, supplies	.	.	12 22
George H. Holbrook, supplies	.	.	13 19
Frank A. Bates, supplies	.	.	6 11
O. M. Rogers, supplies	.	.	6 05
I. W. Horne, supplies	.	.	1 60
C. C. Webster, labor, &c.	.	.	4 25
Asaph T. Arnold, labor, &c.	.	.	2 00
R. A. Gage, expressing	.	.	9 25
W. P. Brown, expressing	.	.	2 70
O. C. R. R. Co.	.	.	85
J. F. Sheppard & Sons	.	.	33 92
C. H. Potter, fuel	.	.	2 70
			<hr/>
			\$1,276 28

INCIDENTALS FOR SCHOOLS.

Appropriations	.	.	.	.	\$500 00
					<hr/>
Paid John H. Dinsmore, supplies	.	.	.	.	\$13 28
John F. Bowditch, supplies	.	.	.	.	10 50
Sarah W. Lane, supplies	.	.	.	.	5 58
American Book Co., supplies	.	.	.	.	12 00
I. W. Horne, cash paid supplies,	.	.	.	.	79 63
I. W. Horne, services [as secre-	.	.	.	.
tary of committee	.	.	.	.	37 50
Franklin Educational Co.	.	.	.	.	61 74
W. P. Brown, expressing	.	.	.	.	6 44
O. C. R. R. Co., freight	.	.	.	.	1 59
Charles A. Belcher, services	.	.	.	.	2 00
A. W. Taylor, supplies	.	.	.	.	1 80
					<hr/>
<i>Amount carried forward</i>	.	.	.	.	\$232 06

<i>Amount brought forward</i> . . .	\$232 06
Vinton & Son, supplies . . .	1 40
E. S. Ritchie & Sons, supplies . . .	15 10
George S. Perry, supplies . . .	12 75
Weymouth & Braintree Publish- ing Co., printing	24 40
Frank A. Bates, labor	3 75
J. M. Arnold, supplies	2 00
W. Witherell, supplies	11 00
G. B. Bates, supplies	5 00
D. P. Hayward, tuning piano	4 00
H. P. Diman, supplies	65
Dennison Manufacturing Co., supplies	2 63
Samuel C. Bridgham, cash ex- penses	2 40
R. Allen Gage, expressing	25 46
E. A. Page, supplies	1 90
George F. King & Merrill, sup- plies	8 00
J. L. Hammett, supplies	91 92
F. W. Brett, supplies	88
Wallace Spooner, supplies	14 00
O. M. Rogers, supplies	4 95
J. R. Carmichael, supplies	4 50
Horace Faxon, truant officer	2 00
Annie M. Brooks, supplies	1 95
Braintree Water Department, water	51 00
N. Y. & Boston Express Co., expressing	1 20
Green & Prescott, printing	20 25
C. H. Hobart, supplies	8 29
Richard DeNeil, supplies	1 25
<i>Amount carried forward</i> . . .	<hr/> \$554 69

<i>Amount brought forward</i> . . .	\$554 69
A. E. Bradford, supplies . . .	3 50
George H. Holbrook, labor and supplies	73 61
	<hr/>
	\$631 80

INCIDENTALS FOR SCHOOL HOUSES.

Appropriation	<u>\$700 00</u>
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United States School Furniture Co., supplies	\$191 23
J. O. Whittemore, supplies . . .	13 50
Richard DeNeil, supplies . . .	16 50
J. L. Hammett, supplies . . .	49 77
R. Frampton, supplies . . .	18 70
Frank A. Bates, labor and sup- plies	99 21
T. W. Herrick & Co., labor and supplies	96 55
A. J. Wilkinson & Co., labor and supplies	11 53
George S. Parker, labor and supplies	5 75
John Taylor, labor and supplies	27 46
George H. Holbrook, labor and supplies	8 10
J. H. Dinsmore, labor and sup- plies	41 40
A. E. Bradford, labor and sup- plies	68 25
J. H. Malvena, labor and sup- plies	6 00
F. F. Pulsifer, supplies . . .	4 00
Thomas Huston, labor . . .	1 50
	<hr/>
<i>Amount carried forward</i> . . .	\$659 45

<i>Amount brought forward</i>	.	.	\$659 45
J. R. Carmichael, labor	.	.	8 00
Chester A. Kane, labor	.	.	5 00
W. F. Holbrook, labor	.	.	3 00
W. Witherell, labor	.	.	17 70
Elisha Saville, labor	.	.	60
Carter Rice & Co., supplies	.	.	2 50
Alden H. Holbrook, labor	.	.	2 00
J. B. Rhines & Co., lumber	.	.	7 92
O. C. R. R. Co., freight	.	.	6 06
R. A. Gage, freight	.	.	1 00
Hayward Brothers, labor and stock	.	.	15 00
C. S. Hannaford, labor and stock	.	.	5 10
Garret Haley, labor	.	.	1 00
			<hr/>
			\$734 33.

TEXT BOOKS AND SUPPLIES.

Appropriation	.	.	.	.	\$1,100 00.
					<hr/>
Paid American Book Co.	.	.			\$144 52
University Publishing Co.	.	.			26 24
Ginn & Co.	.	.	.	.	188 87
George F. King & Merrill	.	.			107 29
J. L. Hammett	.	.	.	.	68 12
Milton, Bradley & Co.	.	.	.	.	5 29
Winkley, Dresser & Co.	.	.	.	.	4 10
Allen & Bacon	.	.	.	.	6 25
D. C. Heath & Co.	.	.	.	.	25 52
Houghton, Mifflin & Co.	.	.	.	.	46 94
New England Publishing Co.	.	.	.	.	15 35
Silver, Burdett & Co.	.	.	.	.	203 27
Carl Shoenof	.	.	.	.	11 96
Mills & Thompson	.	.	.	.	1 00
					<hr/>
<i>Amount carried forward</i>	.	.			\$854 72

<i>Amount brought forward</i>	.	.	\$854 72
D. Lothrop & Co.	.	.	8 15
Charles Scribner & Sons	.	.	75
North Western Journal of Education	.	.	3 00
Home Library Association	.	.	26 10
Educational Publishing Co.	.	.	16 00
Carter, Rice & Co.	.	.	5 00
Maynard & Merrill	.	.	11 00
Leach, Shewell & Sanborn	.	.	24 67
Lee & Shepard	.	.	23 40
William Ware & Co.	.	.	11 00
Boston School Supply Co.	.	.	2 90
George S. Perry & Co.	.	.	54 98
I. W. Horne	.	.	2 08
Victoria P. Wilde	.	.	1 75
Elizabeth J. Hilles	.	.	3 00
Franklin Educational Co.	.	.	3 69
E. B. Treat	.	.	2 75
O. R. Cook	.	.	5 32
W. A. Torrey	.	.	5 25
			<hr/>
			\$1,065 51

ALMSHOUSE.

Dr.

Appropriation	.	.	.	.	\$2,000 00
<hr/>					
To appraisal February 1, 1893	.	.	.	.	\$1,560 05
Paid C. H. Potter, services as superintendent	.	.	.	.	440 00
C. H. Potter, cash paid sundries	.	.	.	.	31 50
Hired Girl	.	.	.	.	151 00
Horace Dana, groceries	.	.	.	.	53 44
J. Marcus Arnold, groceries	.	.	.	.	67 53
					<hr/>
<i>Amount carried forward</i>	.	.	.	.	\$2,303 52

<i>Amount brought forward</i> . .	\$2,303 52
James T. Weeks, groceries . .	68 88
C. H. Hobart, groceries . .	78 08
Bradford & Mansfield, groceries	64 09
H. M. White, groceries . .	67 08
Christian Hansen, groceries .	12 60
Bridgham Brothers, meat, &c. .	65 37
C. W. Hollis, meat . . .	33 13
John F. Eaton, meat . .	45 83
J. H. Schraut, bread and crackers	47 68
Ambler & Hobart, grain . .	113 14
J. F. Sheppard & Sons, coal .	194 64
J. F. Sheppard & Sons, ice .	12 14
Sarah E. Fitch, dry goods .	43 07
George E. Jones, fish . .	35 29
Braintree Clothing Store, sup- plies	70 90
O. Q. Ball, oil	12 56
T. H. Libby, milk	9 84
T. H. Libby, wood and labor .	33 75
M. L. Tupper, coal	6 00
Sarah A. Brown, wood . . .	8 00
Braintree School Fund, wood .	24 00
N. H. Hunt, wood	40 00
Frank A. Bates, three fire ex- tinguishers	45 00
Frank A. Bates, labor and sup- plies	11 69
Keay & Shay, burial of Mary Nolan	15 00
Keay & Shay, burial of Abigail Hobart	20 00
W. A. Torrey, medicine . .	15 85
<i>Amount carried forward</i> . .	<hr/> \$3,497 13

<i>Amount brought forward</i> . . .	\$3,497 13	
Noah Torrey, medical attendance	15 00	
Noah Torrey, medical attendance, T. Kiley	5 25	
Braintree Water Department, water	26 50	
H. H. Snow, cleaning clock	1 00	
H. B. Whitman, repairs on rubber room	6 75	
H. B. Whitman, repairs and supplies	7 55	
F. A. Oliver, care of W. Brown (insane)	2 00	
O. M. Rogers, supplies	2 87	
L. M. Ham, repairs on lockup	1 50	
E. Shay, blacksmith work	13 50	
	<hr/>	\$3,579 05

Cr.

To appraisal Jan. 1, 1894	\$1,496 45	
To kindlings for schools, &c	156 22	
	<hr/>	\$1,652 67
Cost of Poor in Almshouse		\$1,926 38
Received for board of Jane Simpson	54 00	
Received for board of Abigail Hobart	47 90	
Due for board of Jane Simpson	54 00	
Due from State for Timothy Kiley	9 25	
	<hr/>	\$165 15

INMATES OF ALMSHOUSE.

NAME.	AGE.	DAYS.
George Littlefield,	68	334
Ezra Dyer,	76	334
Samuel H. Cranston,	63	334
Johanna McMahon,	98	334
Elizabeth O. Penniman,	83	334
Jane Simpson,	64	334
Maria Kelley,	29	334
Maggie Richardson,	23	334
Mary Goodman,	56	334
Abigail Hobart,	75	328
Charles Hayden,	88	261
Mary E. Nolan,	75	135
Andrew J. Egan,	69	95
William Patterson,	58	122
John Andrews,	35	12
Timothy Kiley,	35	11
Ernest Madden,	11	7
Abraham Mead,	76	214
Sarah McCornish,	56	95
W. Brown,	22	2
Prisoners,		31
Tramps,		206
Total number of days,		4725
Total number of weeks,		675
Cost per week,		\$2 85

APPRAISAL OF PROPERTY AT ALMSHOUSE

JANUARY 3, 1894.

1 horse . . .	\$75. 00	<i>Am't brought forward</i>	\$357 40
1 covered wagon . . .	50 00	hook . . .	75
1 pung . . .	30 00	1 manure hook . . .	75
1 hay wagon . . .	35 00	Scythes and snaths . . .	3 00
1 tip cart . . .	12 00	7 hoes . . .	1 50
1 farm wagon . . .	5 00	1 sickle and 1 sod	
2 ploughs . . .	4 00	cutter . . .	75
1 harrow . . .	5 00	1 iron bar . . .	1 00
1 whiffle-tree and 6		Wood saws and axes	5 00
chains . . .	4 00	1 hand saw and tools,	1 50
1 snow plough . . .	5 00	3 ladders . . .	4 00
1 drag and rocker . . .	1 00	2 ropes . . .	50
1 wheelbarrow . . .	2 50	1 bench and vise . . .	8 00
1 grindstone . . .	3 50	Steel balances . . .	2 50
3 harnesses . . .	35 00	Hose and carriage . . .	4 00
2 blankets and sur-		1 coal shovel . . .	75
cingle . . .	1 50	Steps . . .	75
1 fly net . . .	1 00	Wood . . .	120 00
1 wheel jack and		Coal . . .	140 00
wrench . . .	1 25	30 barrels kindlings . . .	9 00
Hay, straw and bed-		75 barrels . . .	7 50
ding . . .	25 00	1 bench, 5 wash-	
Grain . . .	2 50	boards, 3 baskets,	
12 bags . . .	2 40	3 tubs, 8 pails . . .	4 50
4 measures . . .	75	4 boilers . . .	5 00
32 hens . . .	25 00	2 wringers . . .	2 00
Manure . . .	25 00	3 clothes horses, 3	
Fence wire . . .	2 00	lines . . .	2 00
7 rakes . . .	1 00	6 flat irons . . .	2 00
8 forks . . .	3 00	Brooms and brushes . . .	3 50
1 brush and 1 bill		1 force pump . . .	2 50
<hr/> <i>Amt's carried forward,</i>			<hr/> \$690 15
	\$357 40		

<i>Am'ts brought forward</i>	\$690 15			\$1,001 85
Ice chest . . .	20 00	Flour . . .	2 75	
Ice cream freezer . .	2 00	Beans . . .	7 50	
1 watering pot . . .	50	Tea and coffee . .	5 30	
Oil and barrel . . .	3 50	Molasses and vinegar	75	
Baskets . . .	25	Spices, etc. . .	1 50	
2 stoves and range . .	40 00	Lard . . .	3 00	
1 steam cooker . . .	2 00	Preserves and pickles,	15 00	
Lamps and lanterns . .	8 50	Soap . . .	4 00	
Extra chimneys and		Tobacco and cutter . .	9 00	
burners . . .	2 25	Cranberries . . .	1 00	
6 tables and covers . .	12 00	1 wheel chair . . .	10 00	
42 chairs . . .	9 00	3 sick chairs . . .	1 50	
3 dining-tables . . .	17 00	1 bed pan . . .	1 50	
4 odd tables . . .	2 00	2 rubber sheets . .	1 50	
Table cloths . . .	5 00	2 air pillows . . .	1 00	
Towels . . .	3 00	Curtain and fixtures . .	5 00	
Iron, stone, wooden		27 iron bedsteads . .	150 00	
and tinware . . .	15 00	2 wooden bedsteads . .	4 00	
Crockery and glassware	12 00	26 mattresses . . .	20 00	
Knives and forks . . .	3 00	17 feather beds . . .	60 00	
Spoons . . .	4 00	33 pillows . . .	15 00	
1 chest of drawers . .	3 00	90 pillow cases . . .	10 00	
24 chairs . . .	12 00	83 sheets . . .	30 00	
5 rocking-chairs . . .	7 00	30 blankets . . .	25 00	
1 looking-glass . . .	50	36 comforters . . .	35 00	
Office furniture . . .	20 00	2 bed spreads . . .	50	
3 clocks . . .	8 00	1 commode . . .	1 00	
8 cuspidors . . .	4 00	10 toilet tables . . .	7 00	
1 carpet . . .	13 00	Chambers . . .	4 50	
Pork . . .	30 00	Window grates . . .	10 00	
Potatoes and other		Straw mattings . . .	5 00	
vegetables . . .	48 00	2 extra stove linings	2 50	
Sugar . . .	5 00	3 fire extinguishers . .	45 00	
<i>Am'ts carried forward</i>	\$1,001 85			\$1,496 45

The Auditors made their annual visit to the Almshouse and made the required appraisal of the property as printed above, and found the same as heretofore in a neat and orderly condition under the management of Mr. and Mrs. C. H. Potter. They were very sorry to learn that the present managers had resigned their position, and trust the Town will be able to secure the services of as able and efficient managers.

DANIEL POTTER,	}	<i>Auditors.</i>
L. W. MORRISON,		
CHAS. G. SHEPPARD.		

Jan. 3, 1894.

POOR OUT OF ALMSHOUSE.

Appropriation		\$1,500
Paid Taunton Lunatic Hospital, support of William Kincaide	\$169 46	
Taunton Lunatic Hospital, support of Amelia C. Hansen	169 46	
Worcester Lunatic Hospital, support of Emma A. Holbrook	135 14	
State Almshouse, support of John Hennessy	109 20	
State Almshouse, support of William Patterson	30 00	
State Almshouse, support of John Abercrombie	25 43	
City of Boston, aid to James H. Jordan	12 94	
City of Boston, aid to John H. Phipps	36 00	
City of Fall River, aid to Thomas Oleranshaw	14 00	
City of Taunton, aid to Robert Tipping	33 28	
	<hr/>	\$734 91

JOSEPH AND MARTHA PENNIMAN.

Paid Joseph Huff, wood	\$ 7 50	
C. H. Hobart, groceries	77 33	
C. H. Potter, wood	14 60	
	<hr/>	\$99 43

ANNIE JONES.

Paid George B. Jones, support	\$47 00	
	<hr/>	\$47 00

MRS. WILLIAM HEARN AND FAMILY.

Paid J. M. Arnold, groceries .	\$153 00	
J. F. Sheppard & Sons, fuel .	24 00	
	<hr/>	\$177 00

MRS. SANDERSON AND FAMILY.

Paid H. M. White & Co., groceries .	\$95 44	
	<hr/>	\$95 44

MRS. O'SULLIVAN.

Paid J. F. Sheppard & Sons, fuel . .	\$38 33	
	<hr/>	\$38 33

MRS. LUKE MULLIGAN.

Paid J. F. Sheppard & Sons, fuel .	\$3 65	
A. W. Taylor, groceries . .	2 00	
	<hr/>	\$5 65

ELISHA B. NIGHTINGALE.

Paid Keay & Shay, burial . .	\$15 00	
A. A. Drollett, digging grave .	2 00	
	<hr/>	\$17 00

ELIZABETH DOHERTY.

Cash aid	\$22 00	
	<hr/>	\$22 00

THOMAS J. DALTON.

Paid A. W. Taylor, groceries . .	\$ 8 00	
J. M. Arnold, groceries . .	15 25	
Bryant & Co., groceries . .	12 00	
A. D. Tirrell, shoes . .	4 25	
J. F. Sheppard & Sons, fuel .	7 55	
	<hr/>	\$47 05

MRS. MORRIS O'CONNOR AND FAMILY.

Paid J. F. Sheppard & Sons, fuel .	\$10 55	
A. D. Tirrell, shoes . .	3 00	
	<hr/>	\$13 55

TERENCE STARR.

Paid J. F. Sheppard & Sons, fuel .	\$3 65	
A. D. Tirrell, shoes . .	5 00	
	<hr/>	\$8 65

ELIZABETH HOBART.

Paid Dr. S. C. Bridgham, medical at- tendant	\$5 50	
	<hr/>	\$5 50

INEZ PENNIMAN.

Paid John Whitty, support . .	\$15 00	
	<hr/>	\$15 00

HOLMES BOY.

Paid Braintree Clothing Store, sup- plies	\$7 25	
	<hr/>	\$7 25

THOMAS LEAVETT.

Paid Morrill Williams, support .	\$23 00	
	<hr/>	\$23 00

Paid Dr. S. C. Bridgham, services as physician and medicine . .	\$41 50	
	<hr/>	\$41 50

POOR OF OTHER CITIES AND TOWNS.

Paid Mrs. Sarah A. Murray (Boston)	\$116 00	
	<hr/>	\$116 00

ALVA M. NIGHTENGALE (DUXBURY).

Paid C. H. Hobart, groceries . . .	\$15 87	
	<hr/>	\$15 87

TIMOTHY KILEY (STATE).

Paid Mrs. Tenney, nursing . . .	\$2 00	
W. A. Torrey, medicine . . .	60	
S. C. Bridgham, medical attend- ant	1 34	
	<hr/>	\$3 94

THOMAS BROW (STATE).

Paid A. W. Taylor, groceries . . .	\$2 00	
	<hr/>	\$2 00

JOHN E. MANN (RANDOLPH).

Paid H. M. White, groceries . . .	\$2 00	
	<hr/>	\$2 00

ELLA A. MCMACKINS (ABINGTON).

Paid C. H. Hobart, shoes . . .	\$2 00	
	<hr/>	2 00

Total,		<hr/> \$1,540 07
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Cr.

Due from City of Boston for Sarah A.

Murray	\$116 00
From Town of Duxbury for A. M. Nightengale	5 10
From Town of Raldolph for John E. Mann	2 00
	<hr/>
Amount carried forward . . .	\$123 10

<i>Amount brought forward</i> . . .	\$123 10	
Town of Abington for Mrs. Mc-		
Mackins	2 00	
From State for Timothy Kiley . . .	3 94	
From State for Thomas Brown . . .	2 00	
Received of Duxbury for A. M.		
Nightengale	10 77	
	<hr/>	\$141 81

SOLDIERS' RELIEF.

Appropriation		\$500 00
Paid City of Quincy, aid to Michael		
Sullivan	\$25 09	
Town of Milford, aid to George		
A. Mower and wife	142 50	
	<hr/>	\$167 59

STATE AID, CHAPTER 301.

NO APPROPRIATION.

Paid To soldiers and families of		
soldiers from Feb. 1, 1893, to		
Jan. 1, 1894	\$989 00	
For December, 1892, and Janu-		
ary, 1893	217 00	
Due from State	<hr/>	\$1,206 00
<i>Cr.</i> State aid returned		\$2 00

SOLDIERS' AID, CHAPTER 279.

Appropriation		\$200 00
Paid Hiram E. Abbott	8 00	
Joseph W. Huff	42 00	
Geoge H. Randall	8 00	
Samuel E. Whitmarsh	156 00	
	<hr/>	\$214 00
One-half due from State		\$107 00

HOSPITAL ACCOUNT.

NO APPROPRIATION.

Paid State Hospitals for board of insane	\$404 48
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Refunded by friends. (See Treasurer's account)	\$404 48
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POST 87 GRAND ARMY OF THE REPUBLIC.

Appropriation,	\$175 00
Paid C. G. Anderson, Quartermaster,	\$175 00
	<u>\$175 00</u>

SEWERAGE SURVEY.

Appropriation,	\$800 00
Paid Howland & Ellis,	\$800 00
	<u>\$800 00</u>

INSURANCE ON PUBLIC BUILDINGS.

Appropriations,	\$700 00
Paid Charles A. Belcher,	\$264 00
E. F. E. Thayer,	471 00
George S. Boyer,	230 25
Henry A. Monk,	152 05
	<u>\$1,117 30</u>

COURT FEES IN CRIMINAL CASES.

NO APPROPRIATION.

Paid John Kelley,	\$23 94
N. Garberino,	5 30
N. B. Fernald,	29 58
James R. Qualey,	15 15
Horace Faxon,	22 70
James A. Reynolds,	3 76
Henry M. Storm,	9 55
Thomas Fitzgerald,	15 43
	<u>\$125 41</u>
<i>Amount carried forward</i>	\$125 41

<i>Amount brought forward</i>	.	.	\$125	41	
B. J. Loring, Jr.,	.	.	5	75	
Edwin F. Knight,	.	.	62	52	
F. A. Oliver,	.	.	50	45	\$244 13
					<hr/>
Cr., Fines returned by Court,					\$19 40

EXTENSION OF WATER MAINS.

Appropriation,	.	.	.	.	\$3,000 00
Paid P. D. Holbrook, Treasurer	.	.	.	\$3,000 00	

SCHOOL HOUSE, EAST BRAINTREE.

Appropriation,	.	.	.	.	\$31,000 00
Paid Martha B. Loud, for lot	.	.	.	\$2,000 00	
Daniel Potter, cash expended,	.	.	.	1 50	\$2,001 50
					<hr/>

Cr.

By fence sold	.	.	.	.	\$15 00
Grass sold	.	.	.	.	8 00
					<hr/>
					\$23 00

NIGHT POLICE.

Appropriation,	.	.	.	.	\$600 00
Paid Thomas Downey,	.	.	.	\$40 00	
Frank F. Rudderham,	.	.	.	40 00	
Henry Dugan, Jr.,	.	.	.	28 00	
F. A. Bates, Equipment	.	.	.	30 80	\$138 80
					<hr/>

TOWN HALL.

NO APPROPRIATION.

Paid F. A. Bates, labor and stock	.	.	.	\$24 35	
T. B. Stoddard, repairs	.	.	.	3 50	
H. H. Snow, cleaning clock	.	.	.	1 75	
T. W. Herrick & Co., labor and stock	.	.	.	46 49	
					<hr/>
<i>Amount carried forward</i>				\$76 09	

<i>Amount brought forward</i> . . .	\$76 09	
Gilbert & Barker, gasoline . . .	39 10	
Walworth Manufacturing Co., gasoline	7 87	
M. L. Tupper, coal	64 68	
Michael Brandley, coal	125 66	
C. H. Potter, kindlings	8 80	
Keay & Shay, mirror	3 50	
A. E. Bradford, labor and stock,	15 94	
C. H. Hobart, supplies	5 33	
Bradford & Mansfield, oil	6 48	
Water Department, water	18 50	
W. E. Dow, wiring hall for elec- tric light	275 00	
	<hr/>	\$646 95
<i>Cr.</i> Received for use of hall,		\$268 50

TOWN LANDS.

Appropriations		\$100 00
Paid T. H. Libby, labor	\$18 50	
James W. Chick, use of roller	50	
Thomas Huston, labor	3 25	
	<hr/>	\$22 25

JANITOR.

Appropriation		\$600 00
Paid J. R. Carmichael	\$550 00	
	<hr/>	\$550 00

INCIDENTAL EXPENSES.

Appropriation,	\$2,000 00
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Paid Stevens & Willis, damage taking water of Little Pond,	\$1,000 00
George P. Niles, and others, Great Pond,	200 00
Henry Gardner, services as ex- pert witness,	100 00
Asa P. French, legal services, .	70 00
Henry A. Johnson, legal services,	10 00
Richard H. Long, agent, rent of Armory,	400 00
Richard H. Long, agent, heat and light 2 1-2 years,	755 16
Pond Desk Co., furniture for Selectmen's room,	175 00
O. C. R. R. Co., freight, . . .	1 90
Thorp Adams Mfg. Co., books and stationery,	11 79
New York & Boston Despatch Co., freight,	2 25
George R. Libby & Co., sta- tionery,	6 15
W. A. Torrey, postage stamps,	7 88
C. H. Hobart, supplies,	8 66
E. W. Adams, labor on target,	12 00
Geo. H. Holbrook, "	47 56
Green & Prescott, printing Town Report,	334 40
Green & Prescott, printing . .	155 15
Weymouth & Braintree Publish- ing Co., printing,	80 00
<i>Amount carried forward . . .</i>	<i>\$3,377 90</i>

<i>Amount brought forward</i> . . .	\$3,377 90
Distributing Town Reports, . . .	14 60
C. G. Anderson, services as Special Police,	5 00
James A. Reynolds, services as Special Police,	6 00
E. H. Mathewson, services as Special Police,	3 00
C. R. Damon, services as Spec- ial Police,	3 00
James W. Chick, services as Special Police,	6 00
J. H. Macandrew, services as Special Police,	3 00
R. M. Loring, services as Spec- ial Police,	23 00
Frank O. Whitmarsh and men, services at forest fires,	9 60
James R. Qualey and men, ser- vices at forest fires,	57 20
I. Francis Vinton and men, ser- vices at forest fires,	26 20
Daniel Potter, services as Clerk of Committee on Appropria- tions,	5 00
James H. Thayer, services at forest fires,	2 40
George S. Boyer, services as teller,	5 00
W. H. Shaw, services as teller,	5 00
L. W. Morrison, " "	5 00
W. A. Kane, " " " "	5 00
Richard L. Arnold, " " " "	5 00
Edward J. Thomas, " " " "	5 00
<i>Amount carried forward</i>	\$3,571 90

<i>Amount brought forward</i> . . .	\$3,571 90
W. A. Kane, refreshments for Registrars of Voters and Elec- tion Officers,	26 00
Samuel A. Bates, clerical work,	180 60
Samuel A. Bates, Clerk of Board of Registrars,	58 50
Samuel A. Bates, returning Mar- riages and Deaths,	54 05
Samuel A. Bates, cash paid ex- press and postage,	28 60
J. L. Burdakin, Transcript of Records,	20 00
Edward C. Reynolds, Transcript of Records,	10 00
L. M. Hobart, Special Police, .	8 00
T. H. Dearing, returning Births,	5 75
S. C. Bridgham, " " .	4 50
A. L. Chace, " " .	75
Noah Torrey, " " .	1 50
F. L. King, returning Deaths, .	3 50
City of Quincy, use of lock-up,	10 00
R. S. Robeson, repairs on ballot box,	5 50
E. H. Barlow, repairs on ballot box,	2 50
F. A. Burrell, horse hire, . . .	1 50
Charles Hill, horse hire, . . .	3 00
Thomas J. Cain, horse hire, . .	8 00
C. H. Custance, drawing hose wagon to forest fires,	10 00
J. M. Arnold, refreshments to men at forest fires,	5 51
<i>Amount carried forward</i> . . .	\$4,019 66

<i>Amount brought forward</i> . . .	\$4,019 66	
Wales Brothers, repairs on town pumps,	9 00	
Water Department, repairs on town pumps,	2 00	
Thomas Groom, tax book,	2 00	
Dr. Torrey, two visits by request of Board of Health,	1 50	
N. F. Hunt, cash expenses,	2 45	
John V. Scollard, "	19 00	
A. O. Clark, "	32 73	
J. F. Bates, "	32 10	
P. D. Holbrook, "	16 80	\$4,137 24
Received of State Armory rent, 1892,	\$100 00	
" " " 1893,	400 00	\$500 00

TOWN OFFICERS.

Appropriation		\$2,700 00
Paid A. O. Clark, services as Selectman, Assessor and Overseer of Poor	\$600 00	
J. F. Bates, services as Selectman, Assessor and Overseer of Poor	600 00	
J. V. Scollard, services as Selectman, Assessor and Overseer of Poor	541 66	
H. F. Hunt, services as Selectman, Assessor and Overseer of Poor	50 00	
P. D. Holbrook, services as Treasurer	400 00	
<i>Amount carried forward</i>	\$2,191 66	

<i>Amount brought forward</i> . . .	\$2,191 66
S. A. Bates, services as Town Clerk	50 00
S. A. Bates, services as Registrar of Voters	35 00
F. A. Hobart, services as Moderator	25 00
Daniel Potter, services as Auditor	35 00
Charles G. Sheppard, services as Auditor	35 00
L. W. Morrison, services as Auditor	35 00
Horace Faxon, services as Constable	76 00
J. R. Qualey, services as Constable	67 50
Henry M. Storm, services as Constable	3 00
B. J. Loring, Jr., services as Constable	7 00
John R. Carmichael, services as Constable	3 00
John Kelley, services as Constable	30 00
James A. Reynolds, services as Constable	9 00
	<hr/> \$2,602 16

ABATEMENT AND COLLECTION OF TAXES.

Appropriation	\$800 00
Paid David H. B. Tayer, collector, abatement on tax of 1891	\$826 20
<i>Amount carried forward</i>	\$826 20

<i>Amount brought forward</i> . . .	\$826 20
Betsy B. Hobart, abatement on tax of 1891	29 60
L. W. Morrison, abatement on tax of 1891	25 16
Peter Smith, abatement four years	19 10
Joseph Dyer, collector, abate- ment on tax of 1892 . . .	192 57
Mrs. Chase Parker, abatement on tax of 1892	4 44
Cornelius Sullivan, abatement on tax of 1892	5 92
Paul Wild, abatement on tax of 1892	2 00
John Bowditch, abatement on tax of 1893	8 40
Heirs of Patrick Crowe, abate- ment on tax of 1893 . . .	8 40
Daniel Hayward, abatement on tax of 1893	31 92
W. I. Jordan, abatement on tax of 1893	9 24
Estate of Gen. Sylvanus Thayer, abatement on tax of 1893 .	84 00
Joseph Crane, abatement on tax of 1893	18 48
Ibrahim Morrison, abatement on tax of 1893	25 20
William L. Wainwright, abate- ment on tax of 1893 . . .	168 00
Estate of Sarah W. Glover, abatement on tax of 1893 .	407 82
<i>Amount carried forward</i> . . .	\$1,866 45

<i>Amount brought forward</i> . . .	\$1,866 45	
Horace Abercrombie, abatement on tax of 1893	51 66	
Stevens & Willis, abatement on tax of 1893	58 80	
William Amory, abatement on tax of 1893	168 00	
A. W. Stetson, abatement on tax of 1893	5 04	
James Ward, abatement on tax of 1893	5 04	
Heirs of E. A. Hunt, abatement on tax of 1893	3 36	
Lewis Dyer, abatement on tax of 1893	2 52	
James Downes, abatement on tax of 1893.	2 10	
Julia F. Hayward, abatement on tax of 1893	3 36	
William B. Summers, abatement on tax of 1893	84	
	<hr/>	\$2167 17

WATER LOAN SINKING FUND.

Appropriation	\$5,000 00	
Paid P. D. Holbrook, Treasurer	\$5,000 00	
		\$5,000 00

HYDRANT SERVICE & INTEREST ON WATER BONDS.

Appropriation	\$4,500 00	
Paid P. D. Holbrook, Treasurer of Water Board, Hydrant Service	\$3,650 00	
P. D. Holbrook, Treasurer, in- terest	850 00	
	<hr/>	\$4,500 00

THAYER PUBLIC LIBRARY.

Appropriation		\$800 00
Paid N. H. Hunt, Treasurer of		
Trustees	\$800 00	\$800 00

DISTRIBUTING LIBRARY BOOKS.

Appropriation		\$100 00
Paid A. H. Mason	\$91 67	
		\$91 67

FIRE DEPARTMENT.

Appropriation		\$2,150 00
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THOMAS SOUTH HOSE Co. No. 1.

Paid Thomas South, Jr., iron work .	\$45 00	
William Hall & Co., hardware .	7 00	
Willard P. Brown, drawing hose		
carriage, etc.	27 50	
J. M. Walsh, supplies	3 10	
Robert M. Loring, services as		
steward	45 83	
Robert M. Loring, supplies .	4 75	
F. O. Whitmarsh, supplies .	1 50	
Braintree Water Department,		
labor, etc.	8 05	
Braintree Water Department,		
water	5 00	
William Orr, Jr. (Treasurer)		
pay of men	206 25	
		\$353 98

M. A. PERKINS HOSE NO. 2 AND HOOK AND LADDER CO.

Paid M. L. Tupper, fuel . . .	\$10 50	
Woodsum's Express Co., drawing Truck and Hose . . .	50 75	
Braintree Water Department, water	5 00	
Clement V. Cottrell, services as steward, etc.	74 72	
H. H. Thayer, iron work . . .	34 56	
H. W. Borden, carpenter work .	6 50	
George S. Parker, painting . .	3 89	
F. F. Tupper, carpentering . .	1 00	
C. H. Hobart, supplies . . .	11 24	
F. W. Newhall (Treasurer of Hose Co.) pay of men . . .	206 25	
W. H. Stoddard (Treasurer of Hook and Ladder Co.) pay of men	206 25	
	<hr/>	\$610 66

N. F. T. HAYDEN HOSE 3, AND HOOK AND LADDER CO.

Paid Charles H. Custance, drawing truck, and labor,	\$60 25	
Frank A. Bates, labor and sup- plies,	7 26	
Samuel Reddy, carpenter work,	23 00	
Richard Belyea, iron work, . .	7 65	
J. M. Arnold, supplies, . . .	3 57	
James T. Weeks, supplies, . .	2 76	
Michael O'Brien, drawing truck,	5 00	
Braintree Water Dept., water, .	5 00	
George Sampson, services as steward, etc.,	74 50	
	<hr/>	
<i>Amount carried forward</i> . . .	\$188 99	

<i>Amount brought forward</i> . . .	\$188 99	
John F. Cronin (Treasurer of Hook and Ladder Co.) pay of men,	206 25	
Edwin F. Watkins (Treasurer of Hose Co.) pay of men, . .	206 25	
	<hr/>	\$601 49

ENGINEERS AND INCIDENTALS.

Paid Weymouth & Braintree Pub- lishing Co., printing, . . .	\$1 00	
John Robbins Mfg. Co., badges,	14 25	
Gilbert F. Payne, supplies, . .	8 50	
William H. Wilson, " . . .	94 75	
A. S. Jackson, " . . .	111 53	
F. W. Barry & Beale, " . . .	75	
C. S. Hannaford, " . . .	2 00	
T. J. Cain, horse hire, . . .	2 50	
F. A. Burrell, " . . .	2 00	
Sundry bills, watching fires, .	12 50	
Frank O. Whitmarsh, services and expenses,	57 76	
Joshua F. Winslow, services and expenses,	28 43	
Jeremiah F. Gallivan, . . .	28 43	
	<hr/>	\$364 40
Total,		\$1,930 53

SHINGLING ENGINE HOUSES.

Appropriation,		\$200 00
Paid H. W. Borden, carpenter work, House 2,	\$100 51	
Hayward Bros., carpenter work, House 1,	80 61	\$181 12
	<hr/>	<hr/>

NEW HOSE.

Appropriation,		\$600 00
Paid A. S. Jackson, for hose, . .	\$605 00	

REPORT OF SUPERINTENDENT OF STREETS.

To the Honorable Board of Selectmen :

Gentlemen—Having been elected by my associates to the position of Superintendent of Streets, I take pleasure in making a report to you, and to the town, as to the conduct of the highway department during the year now closed.

Entering upon my duties without the practical experience which I believe to be an advantage not to be overestimated in a position of this kind, I have endeavored to familiarize myself with the method of road building at present most approved, by consulting recognized authorities upon the care and construction of highways, and by a personal inspection of work done in cities and towns having a reputation for excellence in road construction.

The necessity for better highways throughout the country has never been more intelligently placed before the public than at the present time. The paramount importance of the subject is manifested by the wide-spread interest taken in it by many of the state governments, the universities in different parts of the land, and by private enterprise and energy everywhere. At present the policy which meets with approval is to build and repair with as great a degree of permanency as is possible. Patch-work road building is a thing of the past, unless in provincial communities.

Governor Greenhalge well voiced public opinion upon this matter when he said in his inaugural address, "At present there appears to be a great waste of energy and substance in patching up road-beds. The tendency in most towns is to expend their annual road appropriations in half repairing a large amount of highways, without ever constructing even a small amount of really first-class road."

Some years ago, acting under advice of a special committee which had carefully considered the matter of improved highways, the town purchased a stone-crushing outfit and commenced the

building of macadam roads. We have at present nearly all the main streets constructed by this method.

We believe that the opinion of the public who drive over these streets is unfavorable to them. The fault, however, is not in the macadam system, but in the deviation from it which has been exercised. We have rode over "stone roads" in Hingham, Quincy and Natick which had been built sufficient time for a fair test, and did not become rough like a cobble-stone pavement, and did not break up in dry weather. The reason of this is that the stone was screened, properly spread and thoroughly rolled. While this town purchased a rotary screen, the use of it was abandoned, and it now lies in a pasture off Middle street. We have the opinion of every road superintendent in this vicinity, and also that of Mr. Wm. E. McClintock, of the Massachusetts Highway Commission, that unscreened stone is very poor material for road construction.

There is ample capacity in the present engine and boiler to operate the screen. The platform would have to be rebuilt, and should be set on a level with the top of the hopper. The foundation under the crusher is very insecure and makes a loss in efficiency.

The engine, at the beginning of the present season, developed about six horse power, which was insufficient to run the crusher, unless the jaws were wide open, turning out nothing but coarse stock. The engine and boiler have been thoroughly overhauled, the cylinder has been enlarged, and at present the engine is capable of developing sixteen horse power. The rating when new was but fourteen horse power. This power is sufficient to run the crusher up to speed and also to operate the screen.

When the stone is screened the coarse can be laid at the bottom, the intermediate next, a course of stock which will pass through a 1 1-4 inch screen comes next, and on top as a binder would be placed the pulverized material. Each course should be thoroughly rolled, and the top course well wet down.

This kind of construction will last for years, and makes a road smooth and pleasant to drive over. There is no doubt that

If early application is made, that this town could hire a steam road roller at a very slight advance over the cost of operating the present horse roller. There are about six steam rollers in the State which are for rental, and I would recommend that such an arrangement be made. For thorough, substantial work, the advantage of a steam roller cannot be overestimated. By an investigation into the cost of running a steam roller, I find the following to be the expense :

Engineer, per day,	.	.	.	.	.	\$2 50
Coke,	"	1 00
Oil and waste,	"	35
Water,	"	10
Wood,	"	25

Total cost per day, 20-ton roller,	.	.				\$4 20
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Washington street, from Pearl street to Capen's bridge, which has been built for some time, has become very rough, and it is almost a hardship to ride over some parts of the road. This road, having a good foundation, can be made a first-class highway for comparatively small expense in the following way: Put the steel picks in the wheels of the roller and operate it up and down the street. This will rough up the surface so that the top dressing can adhere. Remove all large stones within two inches of the top. Then put on a course of stone no larger than 1 1-4 inches. Thoroughly roll this in, and then put on the fine stone for a binder. Covering a stone road with gravel is contrary to the whole principle of road building. The gravel will not adhere and will be alternately dust and mud.

I have thoroughly investigated the matter of the town purchasing crushed stone. The lowest price which I have been able to have quoted is \$1.75 per cubic yard, delivered f. o. b. cars. The cost of crushing stone the past season at our plant has been \$1.05 per cubic yard. Of course, this is unscreened. I would estimate, however, that if the screen and crusher were set up properly that we could put stone into the carts at \$1.25 per cubic yard.

During the past season we have built roads on Union, Commercial and Shaw streets. These roads have been built as well as possible under the present conditions, using unscreened material. The engine, boiler and crusher are now in first-class shape.

Very respectfully,

JOHN V. SCOLLARD.

STONE ROADS ACCOUNT.

Appropriation		\$3,000 00
Paid N. Y. N. H. & H. R. R. Co.,		
freight	\$ 1 47	
M. O'Brien, self and team labor,	8 12	
E. F. Parlee, labor	2 08	
Thos. P. Fogg, self and team,		
labor	1 81	
Peter Kelley, lighting street .	75	
Peter Smith, labor	1 31	
Fred O. Connor, labor	2 19	
Andrew Dyer, stone	52 15	
P. Bjorkman, labor	2 19	
T. H. Griffin, labor	14 44	
W. Tellier, stone	1 50	
Thos. Huston, self and team,		
labor	27 62	
John J. Mahar, labor	17 87	
J. Dexheimer, labor	32 18	
M. Gurney, Jr., labor	31 50	
Simon Rogers, stone	37 80	
M. Quinn, labor,	73 56	
T. H. Libby, stone	97 65	
Edw. Flood, labor	28 88	
T. F. Finnigan, stone	79 10	
L. Horgan, labor	19 25	
John Haley, self and team,		
labor	84 59	
M. Gurney, self and team, labor	142 76	
J. Macmahon, labor	60 38	
M. Smith, self and team, labor	114 10	
M. Bentley, labor	56 45	
T. J. Dalton, labor	25 18	
T. Arthur, self and team, labor	133 97	
<i>Amount carried forward</i>	<i>\$1,150 85</i>	

<i>Amount brought forward</i> . . .	\$1,150 85
D. McAuliffe, labor . . .	50 76
T. O'Keefe, self and team, labor . . .	96 68
Jas. MacDonnell, labor . . .	21 50
Jas. Mahar, self and team, labor . . .	165 74
Garrett Haley, labor . . .	86 74
Elmer H. Vinton, self and 4 horses, labor . . .	245 20
E. Huston, self and team, labor . . .	35 75
David G. Strathder, stone . . .	77 35
M. Neal, stone . . .	84 00
Nelson & Robery, stone . . .	120 65
T. Edson, stone . . .	148 05
John E. Orr, labor . . .	88 74
Samuel Henry, labor . . .	65 10
John V. Scollard, cash paid . . .	2 87
Nightengale & Childs, castings . . .	30 30
A. W. Taylor, supplies . . .	30
Baker Hardware Co., supplies . . .	1 00
W. F. Sanborn, supplies . . .	20 83
Waite, Williams & Co., oil . . .	5 00
Braintree Wood & Lumber Co., supplies . . .	3 50
Fore River Engine Co., labor and material . . .	380 15
Betsy B. Hobart, gravel . . .	19 84
J. F. Sheppard & Sons, coal . . .	72 01
W. H. Cobbs, tools . . .	2 10
W. H. Gallison, tools . . .	90
W. I. Jordan, blacksmith work . . .	15 20
T. H. Libby, carting stone . . .	9 45
Michael Brandley, use of sprinkler . . .	10 00
A. W. Baker, express . . .	25
Asa French, adm., gravel . . .	31 20
	<hr/>
	\$3,042 01

Total expended	\$3,042 01
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Cr.

By cash from J. W. West, labor on gutter	\$5 00	
Cash from L. O. Crocker, Jr., for stone dust	3 00	
Cash from Jno. V. Scollard, for iron cover	1 00	
Coal on hand	3 00	
30 loads of crushed stone on hand	30 00	
	<hr/>	\$42 00
		<hr/>
		3,000 01

REPAIRS OF HIGHWAYS AND BRIDGES.

Appropriation	\$4,000 00
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Paid Andrew Dyer and team, labor .	\$363 31
T. F. Finnegan and team, labor	346 79
H. F. Hunt, labor	152 82
George E. Arnold, labor	158 54
Michael Brandley and team, labor	43 87
Alden H. Holbrook, labor	29 36
Josiah F. Holbrook, labor	12 73
Charles H. Hunt, labor	132 70
Joseph S. Miller, labor	3 50
Albert W. Dyer, labor	2 50
Lawrence A. Dyer, labor	3 50
Michael Tenney, labor	2 63
Hollingsworth & Whitney, ashes	24 30
I. Willie Hayden, gravel	19 40
A. O. Clark, gravel	18 50
N. Augustus White, gravel	3 24
Thayer Academy, gravel	4 67
Morse & Whyte, screen	7 50
	<hr/>
<i>Amount carried forward</i>	\$1,329 86

<i>Amount brought forward</i>	.	.	\$1,329 86
M. L. Tupper, drain pipe	.	.	1 80
T. H. Libby, labor	.	.	5 50
C. G. Anderson, repairs on scraper	.	.	6 00
J. B Rhines, lumber	.	.	26 94
L. B. Hollis, gravel	.	.	15 44
N. H. Hunt, gravel	.	.	6 16
C. H. Hobart, supplies	.	.	6 88
W. H. Cobb, supplies	.	.	28 20
H. H. Thayer, blacksmith work	.	.	8 24
Edward Shay, blacksmith work	.	.	6 83
John J. Maher and team, labor	.	.	306 47
Thomas Huston and team, labor	.	.	172 70
Thomas Killian and team, labor	.	.	105 95
James Maher, labor	.	.	194 00
John Maher, labor	.	.	154 52
Thomas Griffin, labor	.	.	56 00
Thomas Gannon, labor	.	.	78 50
Jeremiah White, labor	.	.	35 00
William Sullivan, labor	.	.	37 10
Patrick Deyoung, labor	.	.	31 50
W. P. Sullivan, labor	.	.	8 75
William A. Hollis, labor	.	.	5 00
R. Allen Gage, labor	.	.	6 00
A. A. Drollett, labor	.	.	5 25
S. F. Harrington, labor	.	.	2 00
Frank A. Bates, tools	.	.	9 73
Frank A. Smith, gravel	.	.	4 00
A. S. Morrison & Brothers, ashes	.	.	5 60
J. B. Poore, blacksmith work	.	.	6 00
F. A. Bates, drain pipe	.	.	102 46
Geo. H. Holbrook, bridge work	.	.	73 77
<i>Amount carried forward</i>	.	.	\$2,842 15

<i>Amount brought forward</i> . .	\$2,842 15
W. F. Sanborn, lumber . .	4 40
L. B. Hollis, gravel . . .	39 76
Fulton Iron Foundry, culvert grate	6 87
Ames Plough Co., tools . .	14 59
Bryant & Co., tools . . .	3 80
Electric Light Department, cutting trees	10 00
Jenkins Manufacturing Co., ashes	8 50
James H. Thayer, gravel . .	6 00
W. H. Clapp, labor and gravel .	16 38
James Downes, labor on bridges	7 63
Asa French, Adm., gravel . .	91 50
David A. Newcomb, gravel . .	1 68
Chas. O. Miller, stone for side- walks	15 00
O. C. R. R., freight . . .	50
Henry A. Richards, 103 loads of gravel	8 24
Geo. W. Stevens, labor and team	17 93
A. H. Mason, labor	1 00
Water Department, labor and stock	4 60
Geo. E. Fogg, labor and 4 horses	68 25
Jerry Pitts, labor	10 50
Gussie Pitts, labor	5 66
Benj. Delory, labor	1 50
M. Gurney, Jr., labor . . .	8 75
Jas. Croke, labor	24 50
John Haley, labor and team .	69 05
Josiah Holbrook, labor . .	7 00
<i>Amount carried forward</i> . .	<hr/> \$3,295 74

<i>Amount brought forward</i> . . .	\$3,295 74	
Thos. P. Fogg, labor and team	22 86	
J. Dexheimer, labor . . .	14 00	
Michael Quinn, labor . . .	114 46	
Elmer H. Vinton, labor and team	47 24	
Geo. Preston, labor and team .	35 75	
M. Bentley, labor	55 58	
T. O. Keefe, labor and team .	34 12	
J. Macmahon, labor	75 20	
Garrett Haley, labor	160 85	
Thomas Arthurs, labor and team	233 54	
Thomas Croke, labor	8 94	
Matthew Smith, labor and team	119 34	
M. Gurney, labor and team .	146 39	
D. MacAuliff, labor	64 50	
Francis Leben, gravel	2 00	
Mr. Kellar, gravel	90	
	<hr/>	\$4,445 41

REBUILDING UNION STREET BRIDGE.

Paid A. Dyer and team, labor . . .	28 00	
T. Finnegan and team, labor . .	18 00	
Thomas Penniman, labor	17 50	
Horace F. Hunt, labor	10 50	
George E. Arnold, labor	10 50	
A. T. Stearns Lumber Co., lumber	235 03	
	<hr/>	\$319 53
		<hr/>
		\$4,764 94

Cr.

By amount overdrawn and returned	3 00	
	<hr/>	\$4,761 94

FOUNTAIN STREET.

Appropriation,		\$250 00
Paid Andrew Dyer and team, labor .	\$87 50	
Thomas F. Finnegan and team, labor,	87 50	
Michael Tenney, labor	42 85	
Alden H. Holbrook, labor . . .	33 25	
H. M. White, powder and fuse .	40	
	<hr/>	\$251 50

FRENCHS AVENUE.

Appropriation,		\$300 00
Paid D. W. Lewis, grates	\$10 50	
Andrew Dyer and team, labor . .	12 25	
T. F. Finnegan, "	7 00	
Alden H. Holbrook, "	6 12	
Michael Tenney, "	6 12	
M. L. Tupper, drain pipe	75 22	
	<hr/>	\$117 27

CLEVELAND AVENUE.

Appropriation,		\$2,000 00
Paid William May, balance on con- tract	\$864 75	
Samuel S. French, land damage .	200 00	
	<hr/>	\$1,064 75

DRAW BRIDGE AND BUOYS.

NO APPROPRIATION.

Paid Timothy D. Bagley, labor . .	\$13 00	
Hayward Brothers, labor and stock	27 57	
J. B. Rhines & Co., lumber, . .	66 71	
W. I. Jordan, iron work	28 25	
Judah A. Loring, care of bridge and labor	95 99	
	<hr/>	\$231 52

REMOVAL OF SNOW.

Appropriation,		\$1,000 00
Paid sundry persons, for labor	\$908 42	
	<hr/>	\$908 42

RECAPITULATION.

Orders drawn, pay of school teachers . . .	\$11,662 00
Pay of school janitors . . .	968 00
Fuel for schools . . .	1,203 01
Superintendent of schools . . .	1,100 00
Conveyance of pupils . . .	364 47
Kindergarten . . .	1,276 28
Incidentals for schools . . .	631 80
Incidentals for school houses . . .	734 33
Text books and supplies . . .	1,065 51
Poor in almshouse . . .	2,019 00
Poor out of almshouse . . .	1,540 07
Soldiers' relief . . .	167 59
State aid, chap. 301 . . .	989 00
State aid, chap. 279 . . .	214 00
Hospital account . . .	404 48
Highways and bridges . . .	4,764 94
Stone road . . .	3,042 01
Fountain street . . .	251 50
French's avenue . . .	117 21
Cleveland avenue . . .	1,064 75
Drawbridge and buoys . . .	231 52
Removal of snow . . .	908 42
Fire department . . .	1,930 53
New hose . . .	605 00
Shingling engine houses . . .	181 12
Town hall . . .	646 95
Janitor . . .	550 00
Town lands . . .	22 25
Post 87, G. A. R. . . .	175 00
Sewerage survey . . .	800 00
Police for night duty . . .	138 80
Court fees and expenses . . .	244 13
<i>Amount carried forward . . .</i>	<hr/> \$40,013 67

<i>Amount brought forward</i>		\$40,013 67
Thayer Public Library		800 00
Distributing books		91 67
Abatement of taxes		2,167 17
Extensions of water mains		3,000 00
New school house lot		2,001 50
Insurance on public buildings		1,117 30
Water loan sinking fund		5,000 00
Hydrant service and interest on water bonds		4,500 00
Incidental expenses		4,137 24
Town officers		2,602 16
Operating expenses, electric light		4,310 79
Extension of arc system		666 32
Extension of electric light plant		20,097 79
		<hr/>
		\$90,505 61

We, the undersigned, have examined the accounts of the Selectmen, Assessors and Overseers of the Poor and find them correct, and all necessary vouchers furnished.

DANIEL POTTER,	} <i>Auditors</i>
L. W. MORRISON,	
CHARLES G. SHEPPARD,	
	} <i>of</i>
	} <i>Braintree.</i>

Braintree, January 31, 1894.

APPROPRIATIONS FOR 1893.

Appropriations made at the annual town meeting, March, 1893 :

For support of schools, besides school

funds and dog tax . . .	\$12,300 00
Janitors	1,080 00
Fuel for schools	1,000 00
Incidentals for schools . .	500 00
Incidentals for school houses .	700 00
Text books and supplies . .	1,100 00
Superintendent of schools . .	1,200 00
Conveyance of pupils . . .	200 00
Post 87, G. A. R.	175 00
Water loan sinking fund . .	5,000 00
Hydrant service	3,650 00
Interest on water bonds . . .	850 00
Interest on town debt . . .	5,000 00
Fire department	2,150 00
Two hundred and fiftieth anni-	
versary	350 00
Survey for protection of Little	
Pond	250 00
Extension of arc light system .	125 00
Operating electric light . . .	5,000 00
Support of poor	4,000 00
Repair of highways and bridges	4,000 00
Stone road	3,000 00
Removal of snow	1,000 00
Incidental expenses	2,000 00
Town officers	2,700 00
Janitor of Town Hall, Library,	
and Pond school	600 00

Amount carried forward . . . \$57,930 00

<i>Amount brought forward</i>	.	.	\$57,930 00	
Abatement and collection of				
taxes	.	.	800 00	
Town lands	.	.	100 00	
Thayer Public Library	.	.	800 00	
Distributing library books	.	.	100 00	
Insurance	.	.	700 00	
School house note	.	.	3,300 00	
Electric light note	.	.	2,000 00	
New hose	.	.	600 00	
Shingling engine houses	.	.	200 00	
Extensions of water mains	.	.	3,000 00	
Sewerage survey	.	.	800 00	
State aid, chap. 279	.	.	200 00	
Three kindergartens	.	.	2,000 00	
New road, Union to Middle street,				
July 20th, 1892	.	.	2,000 00	
			<hr/>	\$74,530 00

ASSESSOR'S ACCOUNT.

For Schools, pay of teachers . . .	\$12,300 00
Janitors	1,080 00
Fuel	1,000 00
Incidental expenses for school houses	700 00
Incidental expenses for schools,	500 00
Text books and supplies . . .	1,100 00
Superintendent of schools . . .	1,200 00
Conveyance of pupils . . .	200 00
Kindergarten	2,000 00
Grand Army of the Republic . .	175 00
Sinking fund (water loan) . . .	5,000 00
Hydrant service	3,650 00
Interest on water bonds . . .	850 00
Interest on town debt . . .	5,000 00
Fire department	2,150 00
New hose	600 00
Shingling engine houses . . .	200 00
Printing exercises of 250th an- niversary	350 00
Survey for protection of Little Pond	250 00
Four arc lights	125 00
Operating electric lights . . .	5,000 00
Support of poor	4,000 00
Repairs of highways	4,000 00
Stone road	3,000 00
Removal of snow	1,000 00
Incidental expenses	2,000 00
Town officers	2,700 00
Janitor	600 00
Abatement on taxes	800 00
<i>Amount carried forward, . . .</i>	<u>\$61,530 00</u>

<i>Amount brought forward,</i>	.	.				\$61,530 00
Town lands	.	.	.	.		100 00
Public library	.	.	.	.		800 00
Distributing library books	.	.	.	.		100 00
Insurance of public buildings	.	.	.	.		700 00
School house note	.	.	.	.		3,300 00
Electric light note	.	.	.	.		2,000 00
Extension of water mains	.	.	.	.		3,000 00
State aid, chap. 279	.	.	.	.		200 00
Sewerage survey	.	.	.	.		800 00
Cleveland avenue	.	.	.	.		2,000 00
State tax	.	.	.	.		4,700 00
County tax	.	.	.	.		4,022 01
						<hr/>
						\$83,252 01
Less bank and corporation tax deducted						8,000 00
						<hr/>
						\$75,252 01
Overlay	.	.	.	.	.	1,932 97
						<hr/>
						\$77,184 98

ESTIMATES FOR 1894.

Pay of school teachers, besides school

fund and dog tax . . .	\$13,000 00
Janitors for schools . . .	1,100 00
Fuel for schools . . .	1,200 00
Superintendent of schools . . .	1,200 00
Kindergarten . . .	2,000 00
Conveyance of pupils . . .	500 00
Incidentals for schools . . .	600 00
Incidentals for school houses . . .	1,000 00
Text books and supplies . . .	1,100 00
Poor, support of . . .	4,000 00
State aid, Chap. 279 . . .	200 00
Highways and bridges . . .	5,000 00
Stone road . . .	3,000 00
Removal of snow . . .	1,000 00
Fire department . . .	2,100 00
Janitor . . .	600 00
Town lands . . .	100 00
Town hall . . .	500 00
Post 87, G. A. R. . . .	175 00
Thayer Public Library . . .	800 00
Distributing books . . .	100 00
Abatement and collection of taxes	1,500 00
New school house note . . .	3,100 00
Monatiquot school house note . . .	3,300 00
Electric light note . . .	2,000 00
Water loan sinking fund . . .	5,000 00
Hydrant service . . .	3,750 00
Interest on water bonds . . .	600 00
Insurance on public buildings . . .	1,000 00
Incidental expenses . . .	2,000 00
Water damage . . .	950 00

Amount carried forward, . . . \$60,475 00

<i>Amount brought forward,</i>	.	.	\$60,475 00
Town officers	.	.	2,700 00
Operating expenses, electric light			6,000 00
Interest on town debt	.	.	5,000 00
			<hr/>
			\$76,175 00

TREASURER'S ACCOUNT.

P. D. HOLBROOK, TREASURER.

Dr.

To balance in treasury, Feb. 1, 1893 .	\$8,172 07
Cash received of :	
D. H. B. Thayer, collector of taxes, 1891	2,513 16
D. H. B. Thayer, collector of taxes interest, 1891	3 30
Joseph Dyer, collector of taxes 1892	8,262 61
N. F. Hunt, collector of taxes, 1893	57,263 73
National Mount Wolaston Bank interest	135 10
State Treasurer, on note April 12, 1893	15,000 00
State Treasurer, Corporation tax, 1892	189 56
State Treasurer, Bank tax, 1892	96 07
State Treasurer, Corporation tax, 1893	6,606 51
State Treasurer, Bank tax, 1893	1,660 85
State Treasurer, Rent of Armory	500 00
State Treasurer, State aid, chap. 301	1,310 00
State Treasurer, State aid, chap. 279	175 00
State Treasurer, burial of soldier	17 00
<i>Amount carried forward . . .</i>	<i>\$101,904 96</i>

<i>Amount brought forward</i> . . .	\$101,904 96
County Treasurer, dog tax . . .	743 13
T. A. Watson, Manager of Electric Light, credit to house lighting	866 64
T. A. Watson, Manager, credit to Extension	683 74
Overseers of Poor, credit to Almshouse	258 12
Overseers of the Poor from town of Duxbury, 1892	9 23
Overseers of the Poor from town of Duxbury, 1893	10 77
East Norfolk District Court, fines	19 40
Selectmen, credit to Stone Road . . .	9 00
Selectmen, credit to town hall . . .	268 50
Selectmen, billiard licenses	12 00
Selectmen, bowling alley licenses . . .	4 00
Selectmen, liquor licenses	2 00
Selectmen, hospital account	404 48
Selectmen, for fence and grass sold, credit to new school house . . .	23 00
Selectmen, lot in cemetery sold to N. Allen Penniman	5 00
Selectmen, cash overdrawn, credit to highways	3 00
Selectmen, State aid returned	2 00
Home Savings Bank note dated June 16, 1893	10,000 00
Mary E Young, note dated July 20, 1893	3,000 00
Quincy Mutual Fire Insurance Co., note August 23, 1893	3,000 00
<i>Amount carried forward</i>	\$121,228 97

<i>Amount brought forward</i> . . .	\$121,228 97
National Mount Wollaston Bank, November 22, 1893 . . .	3,000 00
New England Trust Co., note dated December 20, 1893 . .	10,000 00
Gay & Stanwood, note dated December 30, 1893 . . .	5,000 00
Commissioners of Sinking Funds for Bonds	15,500 00

\$154,728 97

Cr.

To cash paid on 1079 orders drawn by the Selectmen	\$90,495 54
To cash paid State Treasurer, note and interest	2,600 00
To cash paid State Treasurer, liquor licenses	1 25
To cash paid State Treasurer, note and interest	15,425 00
To cash paid State Treasurer, interest on 14 notes	560 00
To cash paid State Treasurer, State tax	4,700 00
To cash paid Warren Institution for Savings, note	3,300 00
To cash paid Warren Institution for Savings, interest on notes . .	1,192 04
To cash paid Robert H. Gardiner, in- terest on note	200 00
To cash paid Treasurer of Sinking Fund, interest on Electric Light Bonds	300 00

Amount carried forward . . . \$118,273 83

Amount brought forward . . .	\$118,273 83	
To cash paid N. H. Hunt, Treasurer of Trustees of Thayer Public Library, interest on note . . .	400 00	
To cash paid Home Savings Bank, note and interest	10,300 00	
To cash paid Mary E. Young, note and interest	3,062 50	
To cash paid National Mount Wollas- ton Bank, note and interest . . .	3,016 50	
To cash paid Quincy Mutual Fire Insurance Co., note and in- terest	3,060 00	
To cash paid New England Trust Co., discount on note	119 58	
To cash paid Gay and Stanwood, discount on note	45 20	
To cash paid County Treasurer, County tax	4022 01	142,799 62
	<hr/>	<hr/>
Balance in Treasury Dec. 1, 1893 . .	\$11,929 35	11,929 35
		<hr/>
		\$154,728 97

We the undersigned have examined the accounts of the Treasurer and find the same correct and properly vouched for and the balance as represented of (\$11,929.35) eleven thousand nine hundred and twenty nine $\frac{35}{100}$ Dollars, deposited in Mount Wollaston National Bank, and certified to by Cashier of said Bank.

DANIEL POTTER,	}	<i>Auditors.</i>
L. W. MORRISON,		
CHARLES G. SHEPPARD,		

January 31, 1894.

COLLECTOR'S ACCOUNT.

DAVID H. B. THAYER, COLLECTOR.

TAX OF 1891.

Dr.

Balance on tax of 1891 . . .	\$3,975 34	
Interest collected on tax of 1891 . .	3 30	
	<hr/>	\$3,978 64

Cr.

By cash paid treasurer . . .	\$2,513 16	
By interest paid treasurer . . .	3 30	
	<hr/>	\$2,516 46
Balance due on tax of 1891 . . .		<hr/> \$1,462 18

Braintree, Dec. 30, 1893.

COLLECTOR'S ACCOUNT.

JOSEPH DYER, COLLECTOR.

TAX OF 1892.

Dr.

Balance Due on tax of 1892 . . .	\$9,866 03	
Interest collected on tax of 1892 . .	196 40	
	<hr/>	\$10,062 43

Cr.

By cash paid treasurer . . .		\$8,262 61
By balance due . . .		1,799 82
	<hr/>	<hr/>
	\$10,062 43	\$10,062 43

Dr.

To balance due on tax of 1892 . .	\$1,799 82
-----------------------------------	------------

Braintree, Dec. 30, 1893.

COLLECTOR'S ACCOUNT.

N. F. HUNT, COLLECTOR.

TAX OF 1893.

Dr.

Total tax of 1893	\$77,221 82	
Interest collected on tax of 1893 . .	52 11	
	<hr/>	\$77,273 93

Cr.

By cash paid treasurer	\$57,211 62	
By interest paid treasurer	52 11	
	<hr/>	\$57,263 73
Balance due on tax of 1893		<hr/> \$20,010 20

Braintree, Dec. 30, 1893.

LIABILITIES OF THE TOWN, DECEMBER 30, 1893.

One hundred thousand dollars in bonds, issued July 1, 1887, bearing interest at the rate of 4 per cent. per annum, payable July 1, 1917 . . .	\$100,000 00
One hundred and fifty thousand dollars in bonds, issued June 1, 1891, bearing interest at the rate of 4 per cent. per annum, payable June 1, 1921	150,000 00
	<hr/>
Total amount of water bonds issued . . .	\$250,000 00

For the payment of the above loans the town has a sinking fund as follows :

Loan of July 1, 1887	\$13,424 68
Loan of June 1, 1891	6,232 11
	<hr/>
Total sinking funds	\$19,656 79
	<hr/>
Net water debt	\$230,343 21
The town owes the following notes with interest:	
Trustees of Thayer Academy, note dated March 7, 1874, due on demand, at 4 per cent. per annum	
	\$10,000 00
Trustees of Thayer Library, note dated March 7, 1874, due on demand, at 4 per cent. per annum	
	\$10,000 00
Warren Institution for Savings, eight notes of \$3,300 each, due July 1, 1894, 1895, 1896, 1897, 1898, 1899, 1900 and 1901, bearing interest at $4\frac{1}{4}$ per cent. per annum, given on account of Monatiquot school building . . .	
	26,400 00
	<hr/>
Amount carried forward	\$46,400 00

<i>Amount brought forward</i>	\$46,400 00
State Treasurer, fourteen notes of \$2,000, each bearing interest at 4 per cent., payable annually, May 2, 1894, to May 2, 1907, inclusive, issued on account of electric light plant	28,000 00
New England Trust Co., note dated December 20, 1893, payable four months from date, . . .	10,000 00
Gay & Stanwood, note dated December 30, 1893, payable four months from date	5,000 00
	<hr/>
Total notes outstanding	\$89,400 00
Municipal Lighting Bonds, dated April 1, 1893, due April 1, 1917, sixteen bonds at \$1,000 each . . .	\$16,000 00
One bond at \$500	500 00
	<hr/>
Total Municipal Lighting Bonds	\$16,500 00
Coupons on water loan of 1887, due Jan. 1, 1894, unpaid	\$980 00

FINANCIAL STATEMENT OF THE TOWN, DECEMBER 30, 1893.

Net debt, water works account . . .	\$230,343 21
Sundry notes, outstanding	89,400 00
Municipal lighting loan of 1893 . . .	16,500 00
Unpaid coupons, loan of 1887	980 00
Accrued interest on water bonds . . .	500 00
Accrued interest on sundry notes . . .	520 00
	<hr/>
Total debt of the town	\$338,243 21

ASSETS OF THE TOWN DECEMBER 30, 1893.

NOT INCLUDING PUBLIC PROPERTY.

Balance in the town treasury	\$11,929 35
Balance in the water works treasury . . .	1,594 17
	<hr/>
<i>Amount carried forward</i>	\$13,523 52

<i>Amount brought forward</i>		\$13,523 52
Due from collector of taxes, 1891	.	1,462 18
Due from collector of taxes, 1892	,	1,799 82
Due from collector of taxes, 1893	.	20,010 20
Due from State aid, Chap. 301	.	1,206 00
Due from State aid, Chap. 279	.	123 00
Due from cities and towns, pauper account	.	140 00
Due from State, balance of bank and corporation tax	.	248 07
Two tax deeds, W. E. Jewell	.	32 89
Two tax deeds, Jos. I. Bates	.	24 93
One municipal lighting bond, not sold		1,000 00
		<hr/>
Total assets	.	\$39,570 61
		<hr/>
Net debt of town, Dec. 30, 1893	.	\$298,672 61

REPORT OF BRAINTREE SCHOOL FUND.

JOSEPH DYER, TREASURER.

Dr.

Feb. 1, 1893.

To balance in treasury	\$56 15
Apr. Dividend from Granite National Bank	30 00
Apr. Dividend from Weymouth National Bank	42 00
Apr. Dividend from Eliot National Bank	9 00
Cash received of Geo. W. Osgood	18 75
Cash received of Nelson E. Hayden, rent	100 00
Oct. Dividend from Granite National Bank	30 00
Dividend from Weymouth National Bank	42 00
	<hr/>
	\$327 90

Cr.

May 1, 1893.

By cash paid Norfolk Insurance Co.		\$14 50
Dec. 19. Balance cash paid to Geo. D. Willis, Treasurer Braintree School Fund		313 40
	<hr/>	<hr/>
	\$327 90	\$327 90

BRAINTREE SCHOOL FUND TRUSTEES.

GEORGE D WILLIS, TREASURER.

Dr.

Dec. 19, 1893.

To cash received from Joseph Dyer, Treasurer, balance of account	313 40
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Dec. 30. Cash received of N. E.

Hayden, rent	45 00
------------------------	-------

Cash received of G. W. Osgood, rent	6 25
--	------

Cash received Town of Braintree for wood	24 00
---	-------

Cash received of State Treasurer, Refund Bank and Corporation tax	51 77
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Dividend from Eliot National Bank	9 00
--	------

\$449 42

GEORGE D. WILLIS, *Treasurer.*

AUDITORS' REPORT.

STATEMENT OF APPROPRIATIONS AS AGAINST EXPENDITURES FOR 1893.

OBJECTS OF APPROPRIATIONS.	Amounts.	Amounts Expended.		In Excess.	Unexpended.
For new school house, East Braintree .	\$31,000 00	\$2,001 50			\$28,998 50
Schools	12,300 00	11,662 00			638 00
Janitors	1,080 00	968 00			112 00
Fuel	1,000 00	1,203 01	203 01		
Incidentals for schools	500 00	631 80	131 80		
Incidentals for school houses	700 00	734 33	34 33		
Text books and supplies	1,100 00	1,065 51			34 49
Superintendent of schools	1,200 00	1,100 00			100 00
Conveyance of pupils	200 00	364 47	164 47		
Kindergarten	2,000 00	1,276 28			723 72
Support of poor and soldier's relief	4,000 00	3,726 66			273 34
State aid, Chap. 301		989 00	989 00		
State aid, Chap. 279	200 00	214 00	14 00		
Hospital account		404 48	404 48		
Post 87, G. A. R.	175 00	175 00			
Sinking funds	5,000 00	5,000 00			
Hydrant service	3,650 00	3,650 00			
Interest on water bonds	850 00	850 00			
Interest on town debt	5,000 00	4,280 82			719 18
Fire department	2,150 00	1,930 53			219 47
Two hundred and fiftieth anniversary	350 00				350 00

Surveying Little Pond	250 00				250 00
Extension of arc lights	125 00			541 32	
Operating electric lights	5,000 00		666 32		
Extension of electric light plant	*19,350 38		4,310 79		689 21
Repairs of highways and bridges	4,000 00		20,094 16	743 78	
Stone road	3,000 00		4,764 94	764 94	
Removal of snow	1,000 00		3,042 01	42 01	
Incidental expenses	3,000 00		908 42		91 58
Town officers	2,700 00		4,137 24	1,137 24	
Janitor	600 00		2,602 16		97 84
Abatement of taxes	800 00		550 00		50 00
Town lands	100 00		2,167 17	1,367 17	
Public library	800 00		22 25		77 75
Distributing books	100 00		800 00		
Insurance	700 00		91 67		8 33
School-house note	3,300 00		1,117 30	417 30	
Electric light note	2,000 00		3,300 00		
Extension of water mains	3,000 00		2,000 00		
New hose	600 00		3,000 00		
Shingling engine houses	200 00		605 00	5 00	
Survey for sewerage	800 00		181 12		18 88
New road, Union to Middle street	1,028 90		800 00		
State tax	4,700 00		1,064 75	35 85	
County tax	4,022 01		4,700 00		
			4,022 01		
	\$133,631 29		\$107,174 70	\$6,995 70	\$33,452 29

*In addition to the \$16,500 raised and appropriated for extension of electric light plant there was an additional appropriation at a subsequent meeting of \$1,300.00, and the receipts—\$1,550.38—from extensions on said plant.

THAYER PUBLIC LIBRARY.

TRUSTEES' REPORT.

Matters have had their usual course at the Library during the past year, and there would seem to be nothing of especial importance to mention besides what may be found in the Librarian's and Treasurer's Reports hereto appended and the lists of new books added, as already published in the Braintree Observer.

It has been suggested to the Trustees that water and electric light should be introduced into the building, both of which would seem very desirable, if the town is disposed to incur the expense..

ASA FRENCH,
HENRY A. JOHNSON,
F. A. HOBART,
N. H. HUNT,
E. WATSON ARNOLD,

Trustees..

Braintree, Jan. 8, 1894.

LIBRARIAN'S REPORT.

The Library has been open during the year, 252 days.

Number of volumes borrowed, 19,397.

Average per day, 76 +

The largest daily issue, 220, Nov. 29.

The smallest daily issue, 8, Oct. 12.

The number of volumes circulated, of each class, is as follows :

History, 747

Biography, 469

Travel, 731.

Science and Art, 729.

Fiction, 11,777.

Poetry, 504.

Juvenile, 1,964.

Miscellaneous, 980.

Reference, 1,496.

Number of bound volumes added, 606.

Number of pamphlets, 250 ; maps, 14.

Number of names registered since the opening of the Library, 4,667.

Number added during the year, 163.

Total number of bound volumes in the Library, 10,151.

A. M. ARNOLD,

Librarian.

TREASURER'S REPORT.

Received of Town Treasurer, interest on note	\$400 00	
Received of Town Treasurer, town appropriation	800 00	
Received from Librarian, fines	31 53	
“ “ “ catalogues	2 70	
“ “ Braintree Savings Bank interest	1 54	
	<hr/>	\$1,235 77

EXPENDITURES.

Paid Abbie M. Arnold, librarian . . .	\$366 70	
“ “ assistant	91 63	
“ “ incidentals	3 18	
Estes & Lauriat, books	306 20	
D Appleton & Co., books	12 75	
National Binding Co., binding books	13 75	
J. G. Roberts & Co., binding books	56 48	
Hub Blank Book Co., book	2 50	
Narcisse Cyr., book	1 00	
F. W. Nash & Co., labels, &c	3 60	
J. F. Sheppard & Sons, coal	130 00	
Braintree Water Department, water	9 00	
C. H. Hobart, supplies (4 years) . . .	9 23	
C. B. Woodsum, expressage for 1887, '88, '89, and '90	22 85	
New York & Boston Express Co., express	1 70	
T. W. Herrick & Co., repairs, &c . . .	10 15	
	<hr/>	
<i>Amount carried forward</i>	\$1,040 72	

<i>Amount brought forward</i> . . .	\$1,040 72
Green & Prescott, printing . .	27 00
Bradford & Mansfield, oil . .	4 50
Weymouth & Braintree Publish- ing Co., advertising . . .	1 25
Town of Braintree, kindlings . .	3 60
N. A. Torrey, stationery . . .	2 70
E. F. E. Thayer, insurance . .	152 00
Green & Prescott, Braintree Observer	4 00

\$1,235 77

N. H. HUNT, *Treasurer.*

BRAINTREE FIRE DEPARTMENT.

CHIEF ENGINEER'S REPORT.

To the Honorable Board of Selectmen :

GENTLEMEN—In compliance with the requirements of the Town, I herewith submit the report of the Fire Department, for eleven months, beginning Feb. 1, 1893, ending Dec. 30, 1893.

ORGANIZATION.

The Department was organized Feb. 1, 1893, with F. O. Whitmarsh, Chief, J. F. Gallivan, Clerk, and J. F. Winslow.

COMPANIES.

Thomas South Hose Co., No. 1—T. F. Croke, Captain, 15 men.

M. A. Perkins Hose Co., No. 2—O. B. Battles, Captain, 15 men.

N. F. T. Hayden Hose Co., No. 3—Charles Custance, Captain, 15 men.

Wampatuck Hook and Ladder No. 1—William Buckley, Captain, 15 men.

Hook and Ladder No. 2—L. W. Thayer, Captain, 15 men.

HOUSES.

The engine houses are in good repair; the houses in the south and east parts of the town have been newly shingled and new platforms built.

HOSE.

There has been eleven hundred feet of new hose purchased at an expense of six hundred and five dollars; there have been received for old hose five dollars and ninety-seven cents.

RECOMMENDATIONS.

I would recommend that two hundred and seventy-five dollars be appropriated for new hose.

I would also recommend that two hundred dollars be appropriated for Fire Extinguishers.

I would also recommend that the sum of eight hundred dollars be appropriated for hose towers on the hose houses at the south and east parts of the town.

I would also recommend that the sum of twenty-five hundred dollars for a Fire Alarm be appropriated.

I would also recommend that the sum of two thousand dollars be appropriated for the general expenses of the Fire Department, and that the men be paid the same as last year.

INVENTORY OF PROPERTY.

IN HOSE HOUSE NO. 1.

One hand engine and jumper, 23 ft. of suction hose, 1,500 ft. cotton rubber lined hose, 50 ft. of cotton $\frac{1}{2}$ in. hose, 1 hose carriage, 3 lanterns, 6 belts, 12 spanners, 4 axes, 1 fire hook, 1 hydrant gate, 2 hydrant wrenches, 12 coats, 5 pipes and nozzles, 4 fire hats, 15 badges, eight hundred and fifty feet of condemned hose.

HOSE HOUSE NO. 2.

One hand engine and jumper, 36 ft. of suction hose, 1 hose wagon, 1,500 ft. cotton rubber lined hose, 50 ft. of $\frac{1}{2}$ in. hose, 1 bar, 1 plaster hook, 2 axes, 5 lanterns, 7 hats, 12 coats, 6 pipes, 7 nozzles, 2 horse blankets, 2 hydrant wrenches, 1 hydrant gate, 1 wrench, 7 belts, 13 spanners, 6 hose hooks, 1 Y coupling, 1 shovel, 1 wagon jack, 15 badges, 1 hook and ladder truck, 7 ladders, 3 ladder hooks, 2 axes, 2 shovels, 2 bars, 2 forks, 2 rakes, 1 large hook with fifty ft. of rope and chain, 2 pole hooks, 6 buckets, 2 lanterns, 12 coats, 4 fire hats, 100 ft. rope, 15 badges.

HOSE HOUSE NO. 3.

One hose carriage, 1,400 ft. cotton rubber lined hose, 3 pipes, 3 nozzles, 1 hydrant gate, 2 wrenches, 2 spanners, 4 belts, 1 axe, 50 ft. $\frac{1}{2}$ in. hose, 4 lanterns, 11 coats, 4 fire hats, 15 badges 1 hook and ladder truck, 7 ladders, 17 buckets, 2 ladder dogs, 2 axes, 5 hats, 2 buckets, 2 forks, 3 lanterns, 4 hooks, 11 coats, 15 badges, 1 hammer.

FATAL ACCIDENT.

On date of Sept. 2, 1893, Mr. Thomas Vinton was fatally burned by the explosion of gasoline.

LIST OF FIRES IN BRAINTREE, 1893.

April 1—Fire in woods at East Braintree, J. F. Sheppard owner, at which there was eight hours' work done; cause unknown.

April 23—Fire at South Braintree, building owned and occupied

by the Braintree Wood & Lumber Co.; loss, \$250; no insurance; cause, carelessness from smoking.

May 10—Fire in woods at North Braintree, owned by E. F. E. Thayer and others; 150 hours work; cause unknown.

May 10—Fire at North Braintree, building owned by the Braintree Granite Co.; loss, \$600; insured for \$300; cause, caught from fire in woods.

May 20—Fire in woods at East Braintree, owned by H. A. Johnson, at which there was ten hours work; cause unknown.

May 21—Fire in woods at North Braintree, owned by Braintree Granite Co., at which there was forty hours work done; cause, unknown.

May 22—Fire at South Braintree, building owned by Patrick Maguire, and occupied by W. H. Cobb; loss on building, \$900; insured for \$1,200; loss on contents, \$900; insured for \$600; cause, spontaneous combustion.

August 17—Fire at North Braintree, building owned by A. B. Keith; loss, \$5; no insurance; cause, overheat of still.

August 30—Fire at North Braintree, building owned by Charles W. Hollis; loss on building, \$2,500; insured for \$2,000; loss on contents, \$2,800; insurance on contents, \$1,100; cause, explosion of a kerosene lamp.

September 2—Fire in North Braintree, building owned by Thomas Vinton; valued, \$2,500; damage, \$50; insured for \$2,000; cause, careless use of gasoline.

October 1—Fire at South Braintree, building owned by E. B. Whittier; value, \$3,000; loss, \$1,200; insured for \$2,500; cause, unknown.

October 13—Fire in woods, East Braintree, owned by N. L. White estate, at which there was eleven hours work done; cause, unknown.

November 1—Fire in woods, East Braintree, owned by N. L. White estate, at which there was three hours work done; cause, unknown.

November 2—Fire at North Braintree, building owned by J. L. Simonds; loss, \$1,500; insured for \$100; cause, incendiary.

November 21—Fire in woods at South Braintree, owned by Bradford L. Hollis, at which there was no loss; cause, unknown.

TOWN OF BRAINTREE.

Electric Light Department.

REPORT OF THE MANAGER,

FROM FEB. 1, 1893, TO DEC. 31, 1893.

— ALSO —

REPORT OF THE

Electric Light Construction Committee.

REPORT OF THE ELECTRIC LIGHT COMMITTEE.

BRAINTREE, Jan. 1, 1894.

This committee was appointed at a special town meeting held Jan. 11, 1893, at which, by a vote of 263 yeas to 27 nays, the motion was carried "That the Electric Lighting Committee, appointed at the town meeting of June 2, 1891, be and hereby is authorized and directed to make such additions to the town's electric system as will enable it to furnish light for the town buildings and for commercial and domestic uses, as provided in Chapter 370 of the Acts of the Legislature in the year 1891."

To carry this into effect the sum of \$16,650 was appropriated to be raised on the town notes. At the adjourned annual meeting of April 3, 1893, it was voted that bonds maturing in twenty-four years be issued instead of notes, that the water-works sinking fund be invested in these bonds and that the amount be reduced to \$16,500, in order to save printing an odd bond for \$150. Later, when it was found that the number of applicants for the light largely exceeded the original estimate, and that a further investment was required to pay for additional transformers, meters and extensions of the line wires needed to connect these applicants, an additional appropriation of \$1,300, and the returns for electric lighting for the current year amounting to \$1,253, was made at the special town meeting of Nov. 28, 1893, making the total appropriation \$19,053.

Acting under the authority thus conferred, after the most careful investigation and consideration of the best machinery and

material for the various purposes, we have purchased and installed a steam and electric plant, the main features of which are as follows :

Two Westinghouse alternating dynamos of the latest slow running pattern, one with a capacity of 1,200 actual burning lights and the other for 600 ditto, with the necessary auxiliary apparatus, consisting of exciters, rheostats, compensators, ammeters, volt meters, switches, lightning arresters, etc.

43 Stanley transformers of various sizes.

62 Westinghouse meters.

39,000 feet No. 00 triple insulated wire.

12,600 feet No. 2 triple insulated wire.

5,200 feet No. 4 triple insulated wire.

30,000 feet No. 6 triple insulated wire.

31,800 feet No. 8 triple insulated wire.

4,800 feet okonite wire in various sizes.

This wire of a total length of 23.33 miles has been mostly run on the poles set for the street lighting system. Forty-five additional poles have been set.

1 Rollins engine with cylinder 14 inches diameter by 36 inches stroke and fly wheel 13 feet diameter.

1 steel boiler duplicate of the street lighting boiler set last year, 72 inches diameter by 18 feet long.

Brick and stone foundations for this boiler and engine have been built and all piping, lagging and other work necessary to put them into first class running order has been done.

Full details of all our expenditures classified under the various heads as required by the State Gas and Electric Light Commissioners will be found in our financial statement which is annexed.

In order to place the town in receipt of some revenue from the plant at the earliest possible moment, as soon as a portion of the line wires were run and a fair number of takers connected, we put the smaller dynamo into operation by belting it to the engine.

that runs the street lights. This enabled us to furnish light to about 30 customers on July 1st, long before the principal part of the new plant was completed.

In spite of the hard times the increase in the number of takers of the light has been steady, and at this date (Jan. 1) there are 70 houses and stores connected, having 1,500 sixteen c. p. lights. This, taking into consideration the largest number of lights burned at any one time, as shown by the station ampere meters, is less than one-half the capacity of the plant.

The larger dynamo, with its engine and boiler, were not started into operation until Oct. 31st, since which date the whole plant has been in smooth and successful operation.

As is the custom in connection with the town's water system, we have made a charge for connection, in nearly every case enough to cover the cost of labor and material required to connect from the transformer on the main line to the customer's building. This charge has varied from \$1.50, where the connection was short and easily made, to as high at \$60 in one case, where it was necessary to set several poles and run wire several hundred feet from the street.

Some inside wiring has been done by our men, and we have sold lamps and other material. All the accounts for this labor and material have been kept by the manager and bills have been rendered and collected by him. The total amount of these charges, as shown on the manager's books, is \$878.79, which has been credited to the cost of the house lighting plant, making the net cost, not including material on hand as per inventory, \$18,385.88, which is \$667.12 less than the appropriations.

At the annual meeting last spring it was also voted that the sum of \$125 be appropriated and expended under the direction of the selectmen for the purpose of installing four more arc lamps, or their equivalent in incandescents in the streets. On careful test it was found that the street lighting dynamos could easily run six more arcs and eleven more incandescents, and as there were many applications for street lights in important localities that really needed the light the seventeen additional lamps

have been installed in the localities as given below. In order to locate them in the situations where they were most needed it was necessary to extend the line wires much further than had been estimated, and the appropriation proved altogether inadequate. The total cost of installing them for labor, wire, poles and other material, has been \$666.32.

In installing these additional street lamps we have run 11,100 feet of No. 6, and 6,300 feet of No. 8 triple braid copper wire, and have set 30 poles.

Following are the locations of the new lamps :

ARCS.		INCANDESCENTS.	
South Braintree R. R. station	1	Hall avenue . . .	1
Pond street, opposite Town street . . .	1	Pond street . . .	2
Franklin street . . .	1	Monatiquot av. and Ash street	1
Mt. Vernon avenue . . .	1	West and Washington street	1
Liberty street . . .	1	Hayward street . . .	2
Shaw street . . .	1	Hobart street . . .	3
		Shaw street . . .	1

The entire work of superintending the installation of the house plant and the street lighting extension has been in charge of Superintendent Perry and we were thereby relieved from the expense of employing an outside expert. In order to release Mr. Perry from a portion of his duties in connection with the actual operation of the street plant while this work of construction was going on, an assistant was hired for station work whose wages, \$12 per week, have been charged to the house and street extension accounts, while Mr. Perry's salary has been entirely charged to the operating account as before.

The economy of this plan and the justice of charging the assistant's wages to the extension account is obvious when the alternative plan is considered, which would have been to have hired an expert electrician for the new construction, who would have cost at least \$25 per week. Had we done this Mr. Perry's salary would have been charged to the operating account, but the

extra help would have cost \$13 more per week than under the plan we adopted.

Mr. Perry's willingness to assume these largely increased duties without increase of pay is very commendable.

There is still room at the station for a still further increase in the street or house lighting system if it should be needed in the future.

THOMAS A. WATSON,
AMASA S. THAYER,
HENRY A. MONK,
RICHARD H. LONG,
JOHN V. SCOLLARD,

Committee on Electric Lighting.

CLASSIFIED STATEMENT OF EXPENDITURES

Of the Electric Light Committee.

ELECTRIC PLANT, DYNAMOS, TRANSFORMERS, ETC.

Paid Westinghouse Electric Co., lightning arresters	\$142 80
O. C. R. R., freight on electric machinery	51 33
Westinghouse Electric Co., elec- tric machinery	3,200 00
O. C. R. R., freight on electric machinery	26 80
Stanley Electric Co., 17 trans- formers and 10 cut-outs	743 00
Westinghouse Mfg. Co., spare dynamo coil	3 75
Stanley Electric Co., two trans- formers	56 00
General Electric Co., six cut-outs	7 65
O. C. R. R., freight on meters	97
O. C. R. R., freight on trans- formers	1 06
J. M. Walsh, dynamo covers	3 68
Stanley Electric Co., eleven transformers	314 00
John Kelley, marble for switches	9 50
Westinghouse Electric Co., elec- tric machinery	304 40
Stanley Electric Co., three trans- formers	76 00
O. C. R. R., freight on trans- formers	3 66
Stanley Electric Co., seven trans- formers	
<i>Amount carried forward</i>	<hr/> \$4,944 60

<i>Amount brought forward</i> . . .	\$4,944 60
formers	227 00
Westinghouse Electric Co., electrical machinery	61 01
O. C. R. R., freight on transformers, etc.	92
O. C. R. R., freight on transformers, etc.	2 79
O. C. R. R., freight on transformers, etc.	2 59
Stanley Electric Co., three transformers	130 00
O. C. R. R., freight on transformers	3 48

\$5,372 39

ELECTRIC METERS.

Paid Westinghouse Mfg. Co., 62 meters	\$948 00
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STEAM PLANT.

Paid O. C. R. R., freight on boiler (deducted from Kendall's bill)	\$12 00
F. O. Whitmarsh, wages building engine and boiler foundation	125 00
Edw. Kendall & Sons, on account, boiler	875 00
J. B. Rhines & Co., bricks and cement for foundations	442 32
Geo. E. Fogg, broken stone for foundations	20 00
C. C. Webster, wages building foundation	175 00

Amount carried forward \$1,649 32 \$6,320 39

<i>Amounts brought forward</i> . . .	\$16,49 32	\$6,320 39
Edw. Kendall & Sons, balance		
in full for boiler	26 00	
O. C. R. R., freight on engine .	14 40	
John Cashman, carting boiler, (deducted from Kendall's bill)	12 50	
John Cashman, set of engine foundation stones, as per agreement	100 00	
John Cashman, one extra stone	10 00	
J. B. Rhines, cement for foun- dation	43 50	
C. C. Webster wages building foundation	210 00	
Fore River Engine Co., labor and material	79 13	
Fore River Engine Co., carting engine	25 50	
Rollins Engine Co., engine .	1,600 00	
John E. Orr, 1 machinist hammer	1 00	
Chas. A. Scheiren & Co., belts	94 63	
Albert Hobart, putting boiler into position	20 00	
Edward Billings, sand for foun- dations	21 56	
Fore River Engine Co., labor and material	23 03	
Chas. A. Schieren & Co., belts .	187 24	
Fore River Engine Co., piping station as per agreement with sub committee	697 00	
J. B. Rhines & Co., cement .	12 00	
Fore River Engine Co., labor and material	59 03	
<i>Amounts carried forward</i> . . .	<hr/> \$4,885 84	\$6,320 39

<i>Amounts brought forward</i>	\$4,885 84	\$6,320 39
Fore River Engine Co., labor and material	110 51	
S. C. Nightingale & Childs, lag- ging boiler and piping	84 39	
Fore River Engine Co., labor and material	75 00	
	<hr/>	\$5,155 74

ELECTRIC LINES, WIRES, INSULATORS, POLES, LUMBER HARDWARE,
ETC.

Paid Baker Hardware Co., small hardware	\$1 77	
T. H. Buck & Co., cross arms	66 00	
J. B. Rhines & Co., lumber	3 26	
Brooks, Baldwin & Robbins, bolts, screws, etc.	16 22	
Holmes, Booth & Hayden, cop- per wire (28,166 pounds)	3,766 36	
Baker Hardware Co., small hard- ware	2 94	
Globe Gas Light Co., gasolene	1 60	
Weymouth & Braintree Publish- ing Co., pay-roll blanks	3 00	
J. B. Rhines & Co., lumber	4 93	
Pettingill, Andrews Co., pins, insulators and hardware	128 51	
General Electric Co., tree insu- lators	12 50	
John V. Scollard, writing bonds and paper	14 08	
Brooks, Baldwin & Robbins, auger and bolts	3 63	
	<hr/>	
<i>Amounts carried forward</i>	\$4,024 80	\$11,476 13

<i>Amounts brought forward</i> . . .	\$4,024 80	\$11,476 13
J. B. Rhines & Co., . . .	1 49	
Baker, Hardware Co., hardware, . . .	4 55	
J. B. Rhines & Co., lumber . . .	1 51	
J. F. Sheppard & Sons, balance on poles	26 25	
Fore River Engine Co., labor and material	67 47	
C. H. Spring, 100, 30 and 35 feet poles	216 65	
Baker Hardware Co., hardware . . .	2 94	
Brooks, Baldwin & Robbins, bolts, etc.	3 66	
Baker Hardware Co., hardware, . . .	4 87	
Pettingill, Andrews Co., wire, insulators, etc.	54 37	
General Electric Co., 100 Gem wire holders	10 15	
J. B. Rhines & Co., lumber . . .	5 19	
Baker Hardware Co., hardware, . . .	4 79	
Fore River Engine Co., labor and material	79 13	
F. A. Bates, hardware	2 95	
Pettingill, Andrews Co., wire and supplies	447 77	
Brooks, Baldwin & Robbins, hardware	95	
Baker Hardware Co., hardware, . . .	2 86	
Globe Gas Light Co., torch and gasolene	6 60	
Baker Hardware Co., hardware, . . .	2 31	
Globe Gas Light Co., gasolene . . .	60	
Fore River Engine Co., labor and materials	20 00	
<i>Amounts carried forward</i> . . .	\$4,991 86	\$11,476 13

<i>Amounts brought forward</i> . . .	\$4,991 86	\$11,476 13
Baker Hardware Co., hardware,	4 60	
J. B. Rhines & Co., lumber . .	14 35	
Pettingill, Andrews Co., wire and supplies	301 14	
A. de Klotinsky	94 08	
Baker Hardware Co., hardware,	4 12	
Dexter Bros., paint for new poles	13 50	
A. de Khotinsky, supplies . .	11 32	
F. A. Bates, hardware	1 29	
Fore River Engine Co., labor and materials	37 92	
Pettingill, Andrews Co., supplies	103 80	
Baker Hardware Co., hardware,	5 06	
Brown Electric Co., supplies . .	23 01	
General Electric Co., wire and supplies	18 62	
Fore River Engine Co., labor and materials	12 82	
Ambler & Hobart, hay and grain,	24 15	
Gasolene	2 20	
Dexter Bros., paint	9 00	
J. B. Rhines & Co., lumber . .	7 10	
Brooks, Baldwin & Robbins, bolts, etc.	5 81	
Pettingill, Andrews Co., wire and supplies	273 51	
Edward Shea, work on construc- tion tools	1 00	
Brooks, Baldwin & Robbins, hardware	2 79	
		\$5,963 05
<i>Amount carried forward</i> . . .		\$17,439 18

Amount brought forward . . . \$17,439 18

ELECTRIC LINES, WAGES, EXPENSE OF TEAM, ETC.

Paid Martin Frazier, wages, . . .	\$54 50	
Frank Binney, " . . .	12 50	
Richard Cotter, " . . .	10 00	
A. F. Mahoney, " . . .	10 50	
A. L. Hobart, " . . .	12 50	
Ambler & Hobart, hay and oats, . . .	8 23	
Ambler & Hobart, oats, . . .	3 06	
A. L. Hobart, use of wagon, . . .	1 00	
C. H. Custance, setting poles . . .	38 80	
Ambler & Hobart, hay and oats . . .	34 17	
Thos. South, shoeing horse and repairing wagon,	8 60	
C. H. Custance, setting pole and carting,	2 50	
F. A. Burrell, use of wagon, . . .	10 50	
Ambler & Hobart, hay and oats . . .	68 18	
Thos. South, shoeing horse, . . .	4 51	
Wages linemen for April, . . .	580 75	
Wages linemen for May, . . .	180 86	
Wages linemen for June, . . .	215 50	
Wages linemen for July, . . .	208 13	
Wages linemen for August, . . .	121 50	
Wages linemen for September, . . .	153 75	
Wages linemen for October, . . .	122 50	
Wages linemen for November, . . .	144 00	
Wages linemen for December, . . .	121 25	
	<hr/>	\$2,127 79

ELECTRIC LINES, FREIGHT, FARES, TELEGRAPH, ETC.

Paid O. C. R. R., freight . . .	25	
O. C. R. R., freight . . .	62 69	
	<hr/>	
<i>Amounts carried forward</i> . . .	\$62 94	\$19,566 97

<i>Amounts brought forward,</i> .	\$62 94	\$19,566 97
J. F. Perry, cash paid for freight and fares	3 03	
O. C. R. R., freight	7 57	
Bullard & Davenport, insurance on line material	8 70	
O. C. R. R., freight	6 93	
A. W. Baker, express	55	
O. C. R. R., freight	1 42	
O. C. R. R., freight	20 80	
O. C. R. R., freight	10 20	
O. C. R. R., freight	3 31	
Fore River Engine Co., cash paid for express and telephone messages	11 10	
Fore River Engine Co., cash paid for express and telephone messages	3 30	
Fore River Engine Co., cash paid for express and telephone messages	3 15	
Fore River Engine Co., cash paid express and telephone messages	9 25	
A. W. Baker, express	3 15	
A. W. Baker, express	5 28	
J. F. Perry, cash paid for freight and fares	3 05	
J. F. Perry, cash paid for freight and fares	2 65	
J. F. Perry, cash paid for freight and fares	7 31	
J. F. Perry, cash paid for freight and fares	1 78	
J. F. Perry, cash paid for freight	75	
	<hr/>	\$176 22
<i>Amount carried forward</i>		\$19,743 19

Amount brought forward . . . \$19,743 19

HORSES AND WAGONS.

Paid J. Wilkins, bay mare . . .	\$160 00	
J. M. Walsh, harness parts . . .	3 35	
J. M. Walsh, harness . . .	29 00	
W. E. Hawes, pung . . .	15 00	
	<hr/>	\$207 35
Total		<hr/> \$19,950 54

INVENTORY OF MATERIAL ON HAND.

To be credited to Extension Accounts.

ELECTRIC LINES.

600 ft. No. 12 okonite wire at	
2½c.	\$15 00
400 ft. No. 14 okonite wire at	
19c.	7 60
100 ft. No. 8 okonite wire at	
3c.	3 00
500 lbs. No. 8. W. P. Wire at	
13½c.	67 50
100 lbs. No. 6 W. P. wire at	
13½c.	13 50
100 lbs. No. 4 W. P. wire at	
13½c.	13 50
200 single porcelain cleats at 2c.	4 00
50 2-wire porcelain cleats at 4c.	2 00
5 gallons paint at 90c. . . .	4 50
200 16 c p lamps at 32c. . . .	64 00
11 key sockets at 22c. . . .	2 42
50 pins	50
100 insulators	4 00
50 ft. silk cable	1 00
	<hr/>
<i>Amount carried forward</i> . . .	\$202 52

<i>Amount brought forward</i> . . .	\$202 52	
10 hard rubber tree insulators at 40c.	4 00	
10 iron house brackets at 20c.	2 00	
10 porcelain tubes	70	
50 pole steps	2 00	
Nails, bolts and lags	2 50	
3 lbs. rubber tape at 40c.	1 20	
40 pole brackets	50	
10 4-pin cross arms at 28c.	2 80	
1 arc outrigger	12 00	
33 30-ft. chestnut poles at \$2.30	75 90	
7 35-ft. chestnut poles at \$3.15	22 05	\$328 17
	<hr/>	

ELECTRIC PLANT.

3 arc lamps at \$48	\$144 00	
2 street incandescent sockets at \$1.50	3 00	
4 street incandescent goosenecks at \$1.25	5 00	
4 line lightning arresters at \$12	48 00	
2 switches at \$1.10	2 20	
3 main cut outs at 50c.	1 50	
1 40-light transformer	42 00	
1 20-light transformer	28 00	
3 junction boxes at \$10	30 00	
2 meters returned to Westinghouse Electric Co. for exchange	30 00	
	<hr/>	\$333 70

STEAM PLANT.

4,000 bricks not used in foundation at \$6 "	\$24 00	24 00
	<hr/>	<hr/>
Total		\$685 87

SUMMARY OF COST OF HOUSE LIGHTING EXTENSION.

Electric plant, dynamos, transformers, etc.	\$5,372 39
Electric meters	948 00
Steam plant, engine, boiler, piping, foundations, etc.	5,155 74
Horses and wagons	207 35
Electric lines, wire, poles and supplies	\$5,963 05
Wages, etc.	2,127 76
Freight, etc.	176 22
	<hr/>
	\$19,950 54
Less amount charged customers for labor and material connecting them with the system	878 79
Less value of material on hand and not used, as per inventory	685 87
	<hr/>
Total cost of house lighting plant, as installed	\$18,385 88

We, the undersigned, have examined the above accounts of Thomas A. Watson, chairman of the electric lighting committee, and manager of the electric light department, and find the same correct and properly vouched.

L. W. MORRISON,
CHAS. G. SHEPPARD, } *Auditors.*

January 25, 1894.

DETAILED STATEMENT OF COST OF EXTENSION OF STREET LIGHTING SYSTEM.

Pay of men	\$7 00
Pay of men	20 00
Pay of men	11 00
Pay of men	2 50
	<hr/>
<i>Amount carried forward</i>	\$40 50

<i>Amount brought forward</i>	.	.	\$40 50
Pay of men	.	.	27 00
Pay of men	.	.	21 00
Pay of men	.	.	19 00
C. H. Custance, setting poles	.	.	21 50
Fore River Engine Co.	.	.	4 43
Pay roll, labor	.	.	21 00
“ labor	.	.	17 75
“ labor	.	.	7 50
“ labor	.	.	13 50
“ labor	.	.	11 50
“ labor	.	.	21 00
“ labor	.	.	13 50
“ labor	.	.	28 50
Pettengill & Andrews, wire, etc.	.	.	181 44
Brooks, Baldwin & Robbins, supplies	.	.	2 61
General Electric Co., supplies	.	.	2 89
Fore River Engine Co., labor and material	.	.	17 54
Fore River Engine Co., labor and material	.	.	2 86
Pay of men, labor	.	.	27 50
Pay of men, labor	.	.	31 00
Pay of men, labor	.	.	25 00
United Electric Improvement Co., lamps	.	.	8 00
Pay of men, labor	.	.	18 75
General Electric Co., supplies	.	.	7 75
Pettengill, Andrews Co., wire and supplies	.	.	73 30
			<hr/>
			\$666 32

REPORT OF THE MANAGER OF THE ELECTRIC LIGHT DEPARTMENT.

EAST BRAINTREE, Jan. 1st, 1894.

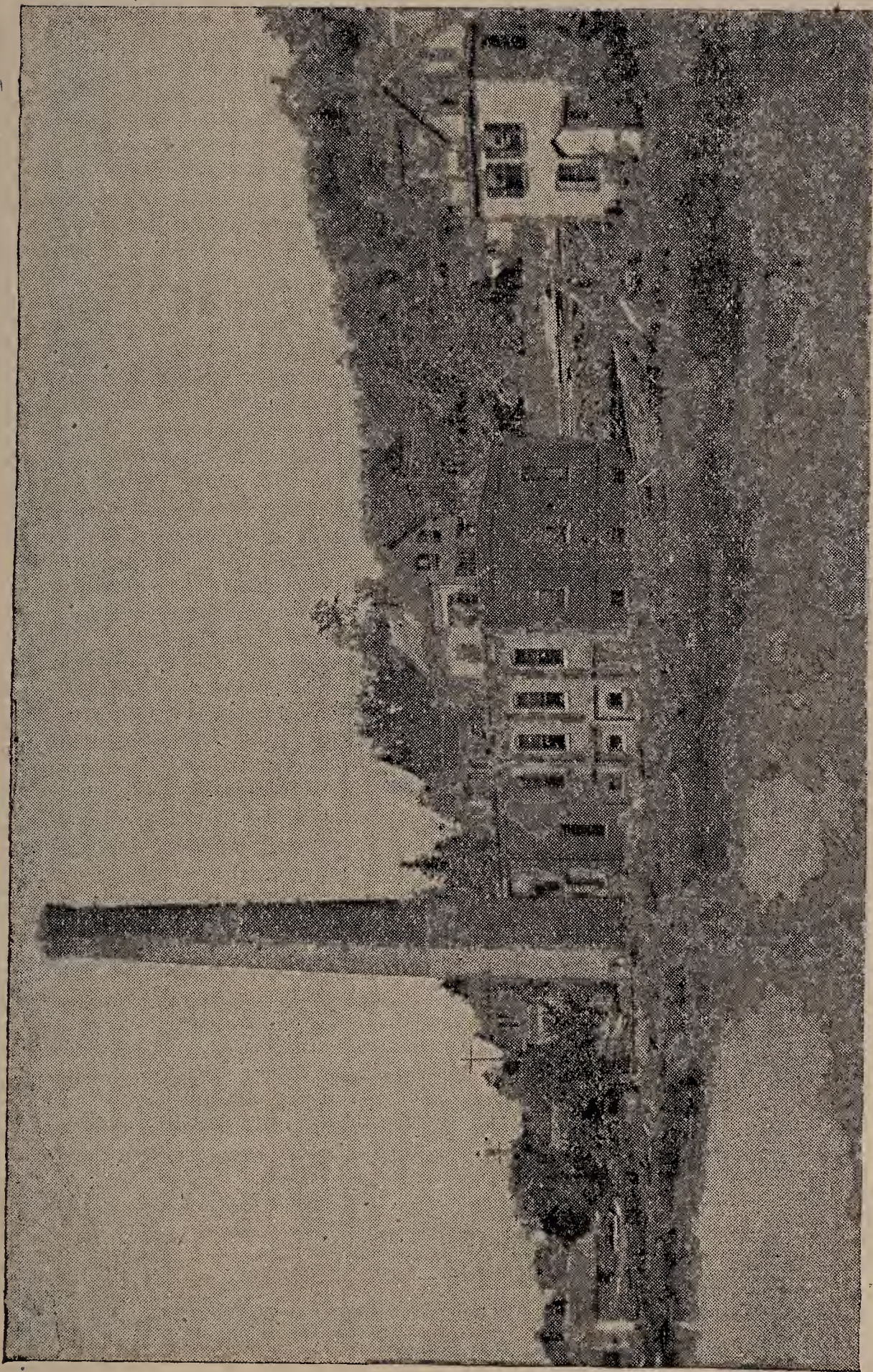
Owing to the change in the ending of the town's business year this report covers a period of eleven months, from February 1st, 1893, to January 1st, 1894.

This period has been a very busy one for all connected with this department, especially for Supt. Perry, who has, in addition to his regular duties, entirely supervised the work of installing the house lighting system, a work that has extended over the entire period of eleven months.

The street lighting system has worked perfectly during the year. Some trouble and expense has been caused by hoodlums breaking incandescent street lamps and hoods, but aside from this there has been no accident, breakage, or serious trouble of any kind. During ten of the eleven months covered by this report the street lights have been operated until 12.15 o'clock on every night not lighted by the moon, and during one month all night.

A detailed description of the house lighting plant will be found in the report of the electric light committee, on another page of this pamphlet, and it will not be necessary for me to repeat it here.

Its operation during the time it has been run has been very satisfactory. By using the surplus power of the street lighting engine to run a small alternating dynamo we were enabled to furnish light to about 30 customers July 1st, and this arrangement rendered it unnecessary to start the main part of the plant



BRAINTREE MUNICIPAL ELECTRIC LIGHT STATION
(Courtesy of the Braintree Reporter.)

until Oct. 31st, when the erection of the new engine, boiler, large dynamo, etc., having been completed they were put into use during the hours of the evening when the greatest number of lamps are being burned, which is at this season from 5 o'clock to 9.30 P. M. At the latter hour the number of lamps burning, as shown by the meters at the station, enables us to shut down the main plant and run the balance of the night with the small dynamo and the street system engine.

This arrangement works well, and is economical in use of coal, as the additional load of the house lights adds but slightly to the amount of coal used after 11 o'clock P. M., and from that time until the street lights are shut off the cost of coal chargeable to the house lights is very small. One boiler furnishes ample steam to run both street and house lights.

At the special town meeting of Nov. 28th it was voted to run the street lights all night, as a protection against burglars, and they have been so operated since Dec. 1st. This has necessitated the employment of an additional man as lamp trimmer, as the carbons have to be renewed every day, instead of every other day as heretofore. The house lighting dynamos are also run all night, although after 12 o'clock but few lights are burned at any one time, it is a great convenience to users to be able to get light at any hour of the night.

Six 1,200 c. p. arc lights and eleven 25 c. p. incandescents have been added to the street system during the year and are now in regular operation, making the total number of arcs 81, and of incandescents 91. I estimate that the latter are equal to 24 arcs, and for the purpose of the estimates of this report I treat the plant as one with 105 arc lights alone.

A detailed statement is annexed of the operating expenses, not including interest or depreciation, for the eleven months covered by this report. These are classified into the various accounts required by the State Gas and Electric Light Commissioners.

By reference to the summary of these expenses it will be seen that the total expense of operating the entire plant for eleven months has been \$4,186.54. It is a matter of considerable

difficulty to divide these expenses between the street and house systems, as only a gradually increasing part of the latter was in operation during but a part of the 11 months, and as an additional complication was introduced by the extra cost of running the street lights all night during December.

I know of no fairer way to divide these expenses than on the basis of cost of the street lights, as shown in my last report, which covered a period during which the street lights were operated alone.

This report showed that the cost for operating expenses alone per 1,200 C. P. arc lamp per year was \$35.45, and I therein further estimated that a saving of \$1.25 on each lamp per year would result from adding five to the total number of lamps in use. As a larger number have been added, it is perhaps fair to increase this to \$1.75; deducting this from \$35.45 gives \$33.70 as an estimate of operating expenses based on my last report of the cost of a 1,200 C. P. arc lamp for a year, multiplying this by the total number of lights, 105, gives \$3,538.50 as the cost for operating expenses of 105 lights for twelve months or \$3,243.62 for eleven months.

I estimate the additional cost of running the street lights all night for one month to be \$131.25 or \$15 per light per year. This added to \$3,243.62 gives \$3,374.87, which I consider a fair estimate of the portion of the total operating expenses (\$4,186.51), chargeable to the street system. The balance, \$811.67, would then be the amount chargeable to the house lights.

The receipts from house and store lighting have been as follows :

For July	\$91 46
For August	120 57
For September	178 09
For October	220 00
For November	272 92
For December	370 25
Total	<hr/> \$1,253 29

This is enough to pay the amount \$811.67 that I have estimated as the proportion of the total operating expense chargeable to house lighting and also the interest on the total cost of the house lighting extension during the six months covered by these receipts, *i. e.*, on \$19,000 for six months at 4 per cent. per annum, which is \$380. I estimate also that had the same number of users been connected July 1st as on January 1st the receipts would have been between \$1,600 and \$1,700, which would have paid in addition to the operating expenses and interest as above the sinking fund requirements for a year, *i. e.*, \$430.

The result of the operation of the house system for the first six months promises well for the future, especially when the rapid increase in the number of users is taken into consideration and that the period during which it has been in operation has been one of the severest financial stringency. Furthermore, I believe that had that section of the town now lighted by private parties been lighted by the town's plant that the result of even the first six months would have shown a handsome profit.

I estimate that the total operating expenses of the whole plant for 1894 will be \$6,775. Of this \$5,113.50 is chargeable to the street lights (105 lights at \$48.70 each), leaving \$1,661.50 to be paid from the house lighting receipts. I feel safe in estimating that these will be \$4,000 for the ensuing year, which will pay these operating expenses, the interest on the cost of the plant, \$760, the sinking fund payment, \$430, and still leave a balance of nearly \$1,100 for depreciation or for extension of the plant.

Without further cost, except for the purpose of connecting new users, I estimate that the income from the present plant, when run to its full capacity, will be about \$6,000 per year, and as the operating expenses need not be any larger than at present, I feel sure that the result will then be a handsome surplus from house lighting that will allow a diminution in the rate, or that can be used to diminish the cost of the street lights.

In accordance with these estimates I recommend that the following appropriations for the operation and extension of the plant for the current year be made :

For the operation of the street lights the sum of \$5,110.

The sum of \$1,500 for the purpose of connecting new users of house light.

From the receipts for electric lighting, the sum of \$1,660, to pay the cost of operating the house plant.

From the receipts for electric lighting the sum of \$660 to pay interest on the house plant bonds, *i. e.*, 4 per cent. of \$16,500.

From the receipts for electric lighting the sum of \$430 for sinking fund payment for house light bonds.

The balance of the receipts for electric lighting for the purpose of connecting new users.

Under the municipal lighting law it devolves upon the manager of a municipal electric lighting system to fix the method and rate of charging for the use of the light. This is a matter to which I gave a great deal of consideration and I finally adopted the meter system, except for a few stores, where it seemed possible to reckon with a considerable degree of accuracy the number of hours that the lights would be burned, and I fixed the rate at 6 mills per 16 candle power light per hour. In addition to the charge for light a charge of ten cents per month is made for the use of the meter.

This rate of 6 mills has been criticised as too low to cover all costs and charges of operating the plant. The usual rate charged by private companies is one cent per hour, but I felt that in a system owned and operated by the public the first essential was a low rate in order to bring the light within the means of as large a number of our citizens as possible, and as there is little if any greater expense in running a system at its full capacity than at half that capacity, and as I believed that the low rate would result in at least double the number of users that the regular rate of one cent would, I figured that 100 users at 6 mills would be financially more profitable than fifty at one cent, besides giving the benefit of the light to twice the number of our citizens.

I feel that the result of the operation of the plant so far has shown the correctness of my reasoning, as 70 connections almost at the start in a time of such business depression as this, is an

excellent showing and one far better than the usual average, as inspection of the last report of the Gas Commissioners shows, in which I find that Amherst has 72 users of commercial incandescent lights; Beverly, 37; Canton, 46; Brookline, 89; Chelsea, 85; Dedham, 101; Gloucester, 119; Holyoke, 76; Leicester, 45; Middleborough, 68, Milton, 51; Natick, 83; Northampton, 27; Plymouth, 94; Taunton, 66.

In most of these places the electric system has been running for years, and most of them have a population many times larger than Braintree, while their number of users of the light is proportionately much smaller, a result that can only be due to our low rate.

If our rate was increased to any considerable extent I feel sure that the total income would be reduced by a diminution in the number of takers, but with a continuance of anything like the present rate of increase in the number of users, I shall hope that it may be possible to reduce even the present low rate in another year or two.

The total cost of the entire electric lighting plant to date is as follows:

Street lighting system, as per committee's report for the year ending Feb. 1, 1893, including material on hand at that date unused	\$30,853 85
Extension of street system during 1893	666 32
Commercial lighting plant, as per committee's report, including unused material	19,071 75
Total	\$50,591 92

THOMAS A. WATSON, *Manager.*

SCHEDULE OF TOOLS, ETC., BELONGING TO
ELECTRIC LIGHT DEPARTMENT.

Eighteen-foot extension ladder, 30-foot ditto, 10-foot step ladder, 4 monkey wrenches, 10 fork wrenches, 1 stillson wrench, sundry files, 1 axe, 2 hatchets, 2 saws, 2 hammers, 2 bitstocks, 5 bits, 1 chisel, 200 feet rope, 4 paint brushes, 2 oil cabinets, 1 oil filter, 9 fire pails, 50 feet fire hose, 2 brass oil lamps, 1 oil lantern, 2 3-gallon oil cans, 6 brass oilers, 1 coal truck, 1 steel ash barrow, fire tools, 2 shovels, 1 vise and bench, dust pan, floor brushes, mops, 2 pails, 2 pairs climbers, 30 feet matting, 1 wire mat, 2 gasoline torches, 1 reel carriage, 1 wagon platform, 1 testing magneto, 1 bay mare, 1 wagon, 1 pung, 1 express harness, 3 blankets, 1 pitchfork, 1 hoe, 1 curry comb and brush, 2 come-alongs.

OPERATING EXPENSES, ELECTRIC LIGHT DEPARTMENT.

From Feb. 1st, 1893, to Jan. 1st, 1894.

COAL.

Paid A. J. Richards & Son . .	\$5 93	
J. F. Sheppard & Sons . .	78 13	
J. F. Sheppard & Sons . .	61 95	
J. F. Sheppard & Sons . .	58 47	
J. F. Sheppard & Sons . .	51 11	
A. J. Richards & Sons . .	2 06	
J. F. Sheppard & Sons . .	30 77	
J. F. Sheppard & Sons . .	74 13	
J. F. Sheppard & Sons . .	82 55	
J. F. Sheppard & Sons . .	43 80	
J. F. Sheppard & Sons . .	124 76	
A. J. Richards & Son . .	93 31	
J. F. Sheppard & Sons . .	179 72	
J. F. Sheppard & Sons . .	238 66	
	<hr/>	
	\$1,125 35	
Less coal on hand, Jan. 1st, 1894 . .	18 20	
	<hr/>	
		\$1,107 15

GENERAL OFFICE EXPENSES.

Paid T. A. Watson, stamp and book	\$1 75	
Weymouth & Braintree Pub. Co., stationery,	14 50	
R. J. Haines, meter sheets . .	1 00	
	<hr/>	
<i>Amounts carried forward .</i>	\$17 25	\$1,107 15

<i>Amounts brought forward</i> . . .	\$17 25	\$1,107 15
Weymouth & Braintree Pub. Co., bill heads,	3 75	
Weymouth & Braintree Pub. Co., station reports	6 90	
	<hr/>	
	\$27 90	
Less stationery on hand, Jan. 1st, 1894	15 00	
	<hr/>	
		\$12 90

OPERATING WAGES.

Paid J. F. Perry, Electrician and Superintendent, wages for Feb., 4 weeks,	\$92 00	
J. F. Perry, wages for March, 4 weeks,	92 00	
J. F. Perry, wages for April, 5 weeks	115 00	
J. F. Perry, wages for May, 4 weeks,	92 00	
J. F. Perry, wages for June, 4 weeks,	92 00	
J. F. Perry, wages for July, 5 weeks,	115 00	
J. F. Perry, wages for August, 4 weeks,	92 00	
J. F. Perry, wages for Sept., 5 weeks,	115 00	
J. F. Perry, wages for Oct., 4 weeks,	89 00	
J. F. Perry, wages for Nov., 4 weeks,	92 00	
J. F. Perry, wages for Dec., 5 weeks,	115 00	
	<hr/>	
		\$1,101 00
<i>Amount carried forward</i> . . .		<hr/>
		\$2,221 05

<i>Amount brought forward</i> . . .	\$2,221 05
James Hay, Fireman, wages for Feb., 4 weeks,	\$46 65
James Hay, wages for March, 4 weeks,	48 00
James Hay, wages for April, 5 weeks,	60 00
James Hay, wages for May, $3\frac{2}{3}$ weeks,	42 86
James Hay, wages for June, $3\frac{2}{3}$ weeks,	42 86
James Hay, wages for July, 5 weeks,	60 00
James Hay, wages for August, 4 weeks,	48 00
James Hay, wages for Sept., 5 weeks,	60 00
James Hay, wages for Oct., 4 weeks,	48 00
James Hay, wages for Nov., 4 weeks,	48 00
James Hay, wages for Dec., 5 weeks,	60 00

\$564 37

Joseph L. Folsom, Engineer, wages for July, 4 weeks,	\$60 00
Joseph L. Folsom, wages for August, 4 weeks	60 00
Joseph L. Folsom, wages for Sept., 5 weeks,	75 00
Joseph L. Folsom, wages for Oct., 4 weeks,	60 00

<i>Amounts carried forward</i> . . .	\$255 00	\$2,785 42
--------------------------------------	----------	------------

<i>Amounts brought forward</i> . . .	\$255 00	\$2,785 42
Joseph L. Folsom, Engineer, wages for Nov., 4 weeks . . .	60 00	
Joseph L. Folsom, wages for Dec., 4 weeks and 4 days, . . .	70 00	
	<hr/>	\$385 00
Martin Frazier, Lineman, wages for Oct., 4 weeks, . . .	\$60 00	
Martin Frazier, wages for Nov., 4 weeks,	60 00	
Martin Frazier, wages for Dec., 4 weeks and 4 days, . . .	70 00	
	<hr/>	\$190 00
T. F. Croke, Trimmer, wages for Dec., 4 weeks . . .	\$36 00	\$36 00

WATER.

Braintree Water Dept. . . .	\$45 47	
Braintree Water Dept. . . .	22 64	
Braintree Water Dept. . . .	26 46	
Braintree Water Dept. . . .	24 92	
	<hr/>	\$119 49

OIL AND WASTE.

Salem & So. Danvers Oil Co., oil	16 71	
C. D. Harlow & Co., glycerine . . .	40	
S. & S. D. Oil Co., waste . . .	9 27	
S. & S. D. Oil Co., oil . . .	16 00	
Waite, Williams & Co., oil . . .	4 00	
M. H. Dingee & Co., oil . . .	11 50	
S. & S. D. Oil Co., oil and waste . . .	11 40	
	<hr/>	
<i>Amounts carried forward</i> . . .	\$69 28	\$3,515 91

<i>Amounts brought forward</i> . . .	\$69 28	\$3,515 91
W. H. Gallison, polish . . .	2 00	
C. D. Harlow, alcohol . . .	95	
S. & S. D. Oil Co., dynamo oil.	15 51	
	<hr/>	
	\$87 75	
Less material on hand . . .	29 02	
	<hr/>	
		\$58 73

CARBONS.

National Carbon Co., 8,000 carbons	\$71 00	
Thomson-Houston Carbon Co., 1,000 carbons	10 00	
Freight on carbons	7 44	
National Carbon Co., 10,000 carbons	77 50	
O. C. R. R., freight on carbons	12 20	
National Carbon Co., 15,000 carbons	127 50	
	<hr/>	
	\$305 64	
Less carbons on hand Jan. 1, 1804	92 00	
	<hr/>	
		\$213 64
Insurance, 11 months		139 38
		<hr/>

STEAM PLANT REPAIRS.

Paid Wm. H. Gallison, gaskets and water glasses	\$2 40	
W. H. Gallison, gaskets and water glasses	1 62	
	<hr/>	
<i>Amounts carried forward</i> . . .	\$4 02	\$3,927 66

<i>Amounts brought forward,</i> .	\$4 02	\$3,927 66
Chas. A. Schieren & Co., re- pairing belt	3 10	
Fore River Engine Co., material and labor	36 47	
Chas. A. Schieren & Co., re- pairing belt	4 49	
J. B. Rhines & Co., lumber .	21	
Fore River Engine Co., cash paid for express, etc.	1 78	

\$50 07

ELECTRIC PLANT REPAIRS.

Paid General Electric Co., dynamo repairs	\$14 67	
General Electric Co., dynamo repairs	1 67	
General Electric Co., dynamo repairs	3 63	
General Electric Co., dynamo repairs	11 00	

\$30 97

STATION REPAIRS, ETC.

Paid Brooks, Baldwin & Robbins, Yale lock	\$1 25	
Fore River Engine Co., ma- terial and labor	18 45	
Brooks, Baldwin & Robbins, floor brush	4 00	

\$23 70

Amount carried forward \$4,032 40

Amount borught forward . . . \$4,032 40

REPAIRS TO LINES AND LAMPS.

Paid United Electric Improvement Co.

50 lamps	\$41 16
Heister Electric Co., 20 lamps . . .	22 18
C. Ahlf, repairs to wagon	8 85
General Electric Co., lamp globes	13 88
Pettengill-Andrews Co., supplies . . .	80
Ambler & Hobart, hay and grain . . .	24 15
Thos. South, Jr., horse shoeing and wagon repairs	10 15

\$124 17

Less material on hand Jan. 1st, 1894 . . . 53 30

\$70 87

Total \$4,103 27

INVENTORY OF MATERIAL ON HAND.

Credited to Operating Accounts.

COAL.

2 tons Cumberland coal at \$4.10	\$8 20	
4 tons screenings at 2.50 . . .	10 00	\$18 20

LINE AND LAMP REPAIRS.

22 arc globes at 35c. . . .	\$4 20	
40 25 c. p. incandescent lamps at 90c.	36 00	
500 lbs. hay at \$1.15	5 90	
10 bushels oats at 52c. . . .	5 20	
Gasolene :	2 00	53 30

OIL AND WASTE.

1 barrel machine oil	\$15 52	
10 barrels cylinder oil at 55c. .	5 50	
15 lbs. vaseline at 25c. . . .	3 75	
50 lbs waste at 8½c.	4 25	29 02

CARBONS.

7,000 1"x12" carbons at \$10 per M.	\$70 00	
4,000 ½"x7" carbons at \$5.50 per M.	22 00	92 00

OFFICE EXPENSE.

Stationery on hand	\$15 00	15 00
Total		<hr/> \$207 52

SUMMARY OF OPERATING EXPENSES.

Coal	\$1,107 15
Wages, J. F. Perry, supt. .	1,101 00
Wages, James Hay, fireman .	564 37
Wages, J. L. Folsom, engineer	385 00
Wages, Martin Frazier, lineman	190 00
Wages, T. F. Croke, trimmer .	36 00
Printing and stationery . .	12 93
Water	119 49
Oil and waste	58 73
Carbons	213 64
Insurance	139 38
Steam plant repairs	50 07
Electric plant repairs . . .	30 97
Station repairs	23 70
Line and lamp repairs . . .	70 97
	<hr/>
	\$4,103 27
Add material on hand Feb. 1, 1893, as per last report .	\$83 27
	<hr/>
Total for 11 months .	\$4,186 54

We, the undersigned, have examined the above accounts of Thomas A. Watson, manager of the Electric Light Department, and find the same correct and properly vouched.

L. W. MORRISON,
CHAS. G. SHEPPARD, } *Auditors.*

Jan. 25, 1894.



TOWN OF BRAINTREE.

WATER DEPARTMENT.

REPORT FROM

Jan. 1, 1893, to Dec. 31, 1893.

ORGANIZATION.

Board of Commissioners,

HON. JAMES T. STEVENS. T. HAVEN DEARING, M. D.
JOHN V. SCOLLARD.

Registrar of Rates,

JOHN V. SCOLLARD.

Superintendent of Works,

WILLIAM E. MAYBURY, P. O. ADDRESS, SOUTH BRAINTREE.

Engineer,

JOHN W. MULCAHEY.

REPORT OF THE BOARD OF WATER COMMISSIONERS.

The Board of Water Commissioners respectfully presents to the citizens of Braintree its seventh annual report of the conduct of the department from Jan. 1, 1893, to Dec. 31, 1893, inclusive. We believe that the exhibit made during the past year must prove satisfactory to the townspeople at large, as it certainly has to the officials in charge of this department.

In the year 1892, which was the first full year that the system was operated by the town, the total charge for rates was \$9,841.64. For the year 1893 the total charge for water was \$12,125.90, an increase of \$2,284.26 in one year. As will be seen by reference to the financial report annexed, the operating expenses have not increased, while the consumption of water shows a material growth.

EXTENSION OF MAINS.

At the annual meeting the town voted the sum of \$3,000 for extension of the water mains. This amount was expended in construction, a detailed account of which will be found in the report of the superintendent. Our town is at present piped so that nearly the entire population can be supplied with water. It is an exceptional case to find a system in a town of this size which reaches so large a proportion of the population. This can be more clearly understood by reference to the statistical report annexed. For the ensuing year we are of the opinion that it will not be necessary for the town to make a special appropriation for

extension. We intend, however, to continue the extension begun at Capen's Bridge as far as the corner of Washington and Cedar streets. This can no doubt be done with the excess in water rates, if appropriated for that purpose. All extensions made during the past year have been done under the direction of our superintendent, the laborers being hired by the day. We think this way preferable to the contract system, as it insures more thorough workmanship.

SUPPLY.

The increase in the number of consumers, while very desirable, draws heavily upon the gallery during the summer months. We were fortunate during the past summer so that we were not obliged to issue restrictive notices as to the use of lawn hose. It would be for the interest of everybody, however, if consumers would be moderate in the use of water for sprinkling purposes.

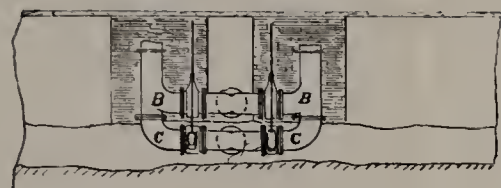
To strengthen our supply we have caused a 12-inch main to be laid into Little Pond and connected with the pumps, a description of which is given in the report of the superintendent. This, of course, will not be utilized unless in case of emergency. The 12-inch pipe used upon this job was dug up on Pond street, being part of the unused main of the Great Pond system.

QUALITY OF WATER.

We have been particularly fortunate in the purity of the water. We know of no system where the consumers evince more satisfaction with the supply. The excellence of the water and its freedom from foreign and vegetable matter is shown by the report of the analysis by the State Board of Health, which appears in this volume.

HYDRANTS.

We have caused extensive repairs to be made upon the Coffin and Whittier hydrants during the past year, and they are now in good condition. We propose to use a better quality of hydrant in the future, believing it the most economical course to pursue.



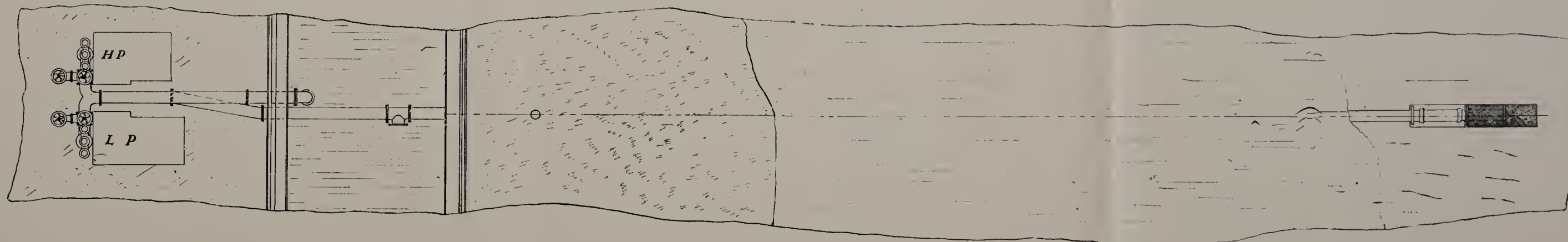
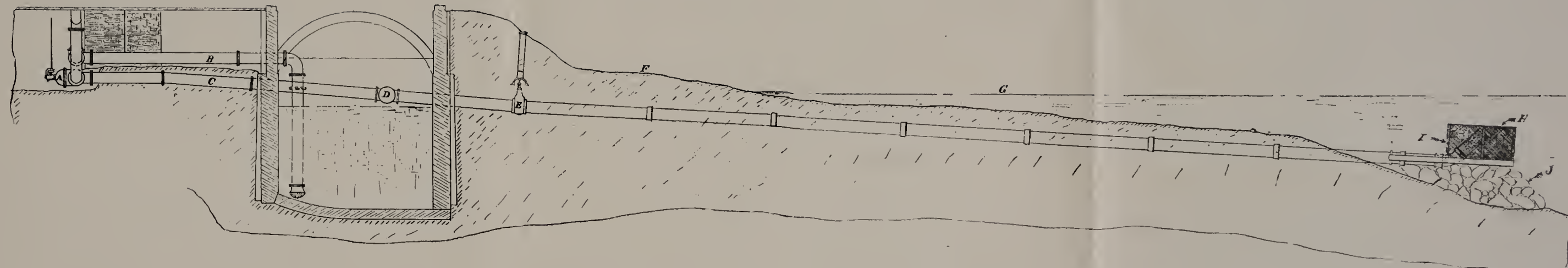
Braintree Water Works.

Proposed Plan for Pump Suctions.

*Scale, $\frac{3}{16}$ in. = 1 foot.

WILLIAM E. MAYBURY, *Superintendent.*

- A Suction gate at pump.
- B Present gallery suction.
- C 12-in. suction to pond.
- D 12-in. T for future connection.
- E Gate on 12-in. pond suction outside pumping station.
- F Shore of Little Pond.
- G Water line of Little Pond.
- H Wire crib.
- I Inner strainer.
- J Foundation under crib.
- HP High pressure pump foundation.
- LP Low pressure pump foundation.



*The drawing from which this cut was made was on a scale of 3-16 in. to 1 foot. The cut is reduced a little more than one half from the drawing.

SURVEY AROUND LITTLE POND.

The appropriation of \$250 for a survey of the borders of Little Pond has not been expended. The board did not secure the services of the competent landscape engineer which it desired, so the matter has been postponed. The money should be reappropriated, as this matter of protecting the borders of our source of supply is of paramount importance.

SUPERINTENDENCY.

Mr. William E. Maybury has continued in the capacity of superintendent of the system. His relations with the Board have been of the most cordial nature. His training and experience in water works business enables him to efficiently superintend the routine affairs, and also to engineer any extension which may be required or any change in pumping machinery.

SINKING FUNDS.

As will be seen by the report of the Treasurer a very small balance remains in savings banks. The trustees have bought of the town 16 municipal lighting bonds amounting to \$16,500.

We believe that no better investment could be made.

For the year 1894 we ask for an appropriation of \$3,825 for hydrant service, and \$5,000 for sinking fund. We believe that the interest and operating expenses can be paid from the revenue, which promises a gradual increase.

We would respectfully refer you to the report of the superintendent, the report of the collector, and the financial and statistical data annexed.

JAMES T. STEVENS,
T. HAVEN DEARING,
JOHN V. SCOLLARD,
Board of Water Commissioners.

REPORT OF JOHN V. SCOLLARD, COLLECTOR AND REGISTRAR OF WATER RATES.

The following Financial and Statistical Report is respectfully submitted :

FINANCIAL.

The collector is charged as follows :

To balance due for rates, 1892	.	\$414 68	
To balance due for construction, 1892		662 62	
To rates charged for 1893,	. .	12,125 90	
To service construction, 1893	. .	1,472 75	
		<hr/>	\$14,675 95

And credited as follows :

By abatements	. . . .	\$331 56	
Rates uncollected	. . .	1,225 51	
Service construction, uncollected		877 09	
Cash paid to Peter D. Holbrook, treasurer of Water Department		12,241 27	
Cash in hands of Collector, Dec. 30, 1893.	. . . .	0 52	
		<hr/>	\$14,675 95

We have examined the foregoing accounts of John V. Scollard, Registrar and Collector of Water Rates, from Jan. 1, 1893, to Dec. 31, 1893, inclusive, and find them correct.

L. WILLARD MORRISON, }
CHAS. G. SHEPPARD, } Auditors of Braintree.

January 24, 1894.

WATER SUPPLY OF BRAINTREE.
Chemical Examination of Water from the Filter-gallery of the Braintree Water Works.
 [Parts per 100,000.]

Number.	DATE OF		APPEARANCE.			AMMONIA.		Chlorine.	NITROGEN AS		Hardness.	Iron.
	Collec- tion.	Exam- ination.	Turbi- dity.	Sedi- ment.	Color.	Residue on Evaporation.	Free.	Albuni- noid.	Nitrates.	Nitrites.		
8742	1892 April 14	April 16	None.	None.	0.02	4.50	.0000	.0016	.0420	.0000	1.7	-
9032	June 22	June 23	None.	None.	0.08	4.95	.0000	.0060	.0200	.0000	1.6	-
9229	Aug. 10	Aug. 11	Slight, milky.	V. slight.	0.10	4.55	.0000	.0032	.0100	.0003	1.6	.0290
9312	Aug. 27	Aug. 27	V. slight.	None.	0.00	4.85	.0000	.0008	.0090	.0000	2.3	.1000
9321	Aug. 31	Sept. 1	V. slight, milky.	None.	*0.00	4.00	.0014	.0050	.0100	.0003	1.9	.1000
9373	Sept. 14	Sept. 15	None.	None.	†0.00	4.95	.0000	.0010	.0180	.0000	1.4	.0050
9529	Oct. 12	Oct. 14	None.	None.	0.00	4.60	.0000	.0022	.0150	.0000	1.7	.0000
9654	Nov. 9	Nov. 10	None.	V. slight.	0.00	4.55	.0000	.0024	.0090	.0000	1.9	.0010
9774	Dec. 8	Dec. 9	None.	None.	0.00	5.25	.0000	.0046	.0400	.0000	2.1	.0050
Av.	. . . . .	. . . . .	. . . . .	. . . . .	0.02	4.69	.0002	.0030	.0192	.0001	1.8	.0343

Odor or 9229, very faintly vegetable; of all others, none. On heating, the only change was the develop-
 ment of a distinct odor in No. 9321.—The samples were collected from a faucet at the pumping station.

*After standing two days the color was 0.08. †After standing eight days the color was 0.04.

STATISTICAL.

Number of services	.	.	.	.	.	.	842
“ “ services in use	.	.	.	.	.	.	826
“ “ families supplied	.	.	.	.	.	.	888
“ “ bath tubs	.	.	.	.	.	.	159
“ “ water closets	.	.	.	.	.	.	184
“ “ horses	.	.	.	.	.	.	184
“ “ cows	.	.	.	.	.	.	78
“ “ factories stores and shops	.	.	.	.	.	.	22
“ “ stables	.	.	.	.	.	.	3
“ “ schoolhouses	.	.	.	.	.	.	6
“ “ greenhouses	.	.	.	.	.	.	6
“ “ hose houses	.	.	.	.	.	.	3
“ “ railroad stations	.	.	.	.	.	.	3
“ “ churches	.	.	.	.	.	.	4
“ “ public halls	.	.	.	.	.	.	5
“ “ cemeteries	.	.	.	.	.	.	2
“ “ railroad tank	.	.	.	.	.	.	1
“ “ ice house	.	.	.	.	.	.	1
“ “ boarding houses	.	.	.	.	.	.	2
“ “ club room	.	.	.	.	.	.	1
“ “ hydrants	.	.	.	.	.	.	153
“ “ services added, 1893	.	.	.	.	.	.	83
“ “ hydrants “ “	.	.	.	.	.	.	7
“ “ houses not reached by system	.	.	.	.	.	.	164
“ “ houses on pipe line not supplied	.	.	.	.	.	.	107

FINANCIAL.

SERVICE CONSTRUCTION.

Paid Labor as per pay roll	.	.	\$972 14
Frank A. Bates, labor and stock			89 62
A. F. Powers, labor and stock	.		2 15
Sumner & Goodwin, material	.		138 39
<hr/>			
<i>Amount carried forward</i>	.	.	\$1,202 30

<i>Amount brought forward</i> . .	\$1,202 30	
Chapman Valve Co., material .	57 90	
Wm. H. Gallison, material .	45	
Walworth Mf'g. Co., material .	333 13	
The Geo. Woodman Co., . .	67 30	
E. L. Fitzgerald, supplies, .	4 55	
Thomas Hoey, supplies, . .	45 03	
Simon Rogers, labor, blasting .	15 00	
B. C. Perry Expressage . .	6 40	
Fore River Engine Co., labor and stock	6 28	
Pect Valve Co., material . .	1 40	
Chadwick Lead Works, stock .	14 47	
	<hr/>	\$1,754 21

PUMPING STATION.

Paid Labor as per pay roll . .	838 30	
J. F. Sheppard & Sons, fuel, .	749 63	
M. Branley, fuel	474 63	
Geo. F. Blake, M'f'g Co., labor and stock	31 50	
Boston Woven Hose & Rubber Co., supplies,	24 12	
Crosby Steam Gage & Valve Co., supplies,	1 75	
J. B. Rhines & Co., lumber, .	5 96	
Wm. H. Gallison, supplies, .	25 90	
Fore River Engine Co., labor and stock	6 13	
Perrin, Seamans & Co., supplies,	1 75	
A. W. Chesterton & Co., sup- plies,	14 08	
Vacuum Oil Co., supplies, .	33 15	
	<hr/>	\$2,206 90

MAINTENANCE.

Paid Labor as per pay roll . . .	\$280 06
H. B. Whitman, labor and stock . . .	12 30
A. H. Mason, postage, . . .	34 74
Thomas B. Stoddard, labor and stock,	7 62
Security Safe Deposit Co., rent of Vault	10 00
Weymouth & Braintree Pub. Co., printing	8 25
J. B. Poore, labor and stock, . . .	22 06
Ambler & Hobart, grain and hay . . .	29 05
H. H. Thayer, labor and stock . . .	8 97
W. I. Jordan, labor and stock . . .	2 35
Green & Prescott, printing reports,	39 00
Edward Shay, labor and stock, . . .	11 65
H. M. White, supplies.	72 69
M. L. Tupper, supplies	53 14
T. W. Herrick & Co., labor and stock	4 24
Thos. South, labor and stock . . .	10 95
F. A. Oliver, care of horse (sick) . . .	1 00
John V. Scollard, collecting and registering water rates . . .	233 13

 \$841.20

MISCELLANEOUS EXPENSES.

Paid C. A. Woodman, damage to house	\$23 00
<i>Amount carried forward . . .</i>	<i>\$23 00</i>

<i>Amount brought forward</i> . . .	\$23 00
Woodsum's Express Co., team- ing	4 65
T. W. Herrick & Co., labor and stock	3 50
Francis Doane & Co., supplies .	2 66
Boston Woven and Rubber Hose Co., supplies	2 25
S. C. Rowell & Co., supplies .	5 64
P. D. Holbrook, cash paid .	3 40
John V. Scollard, cash paid, two books	5 00
Labor, as per pay roll . . .	25 27

\$75 37

SUPERINTENDENT, SALARY AND EXPENSES.

Paid Wm. E. Maybury, salary . . .	\$833 30
Wm. E. Maybury, cash expenses	6 50

\$839 80

TOOLS, ETC.

Paid Wm. H. Cobb, tools . . .	\$21 70
Walworth Mfg. Co., tools, . . .	3 00
A. J. Wilkinson & Co., tools .	2 38
Dodge, Haley & Co.	2 74

\$29 82

SALARIES WATER COMMISSIONERS.

Paid James T. Stevens, salary 1 year	\$100 00
T. Haven Dearing, salary $1\frac{1}{2}$ years	150 00
John V. Scollard, salary Dec. 1, 1892, to Dec. 15, 1893 . . .	104 16
<i>Amount carried forward</i> . . .	\$354 16

<i>Amount brought forward</i> . . .	\$354 16	
Peter D. Holbrook, salary as treasurer	50 00	
Peter D. Holbrook, cash expenses	10 26	
John V. Scollard, services as secretary of water board	52 09	
	<hr/>	\$466 51

EXTENSION OF MAINS.

Paid labor, as per pay roll	\$845 46	
R. D. Wood & Co., main pipe	647 79	
Radford Pipe and Foundry Co., main pipe	871 11	
Wm. May, trenching and carting	59 34	
M. L. Tupper, supplies	11 07	
M. Branley, hauling pipe	22 35	
Coffin Valve Co., hydrants	197 25	
O. C. R. R. Co., freight on pipe	387 89	
Boston Lead Mfg. Co., supplies	166 74	
S. C. Rowell & Co., supplies	8 14	
Geo. E. Fogg, teaming and labor labor on trenches 1892	69 35	
R. A. Gage, teaming	2 95	
H. H. Thayer, supplies	8 50	
Citizens' Gas Light Co., coke	3 00	
Perrin, Seamans & Co., supplies	12 55	
M. Killelea, supplies	20 19	
James Robertson, sundries	4 44	
Braintree Wood and Lumber Co., lumber	14 37	
Builders' Iron Foundry Co., supplies	77 72	
Fore River Engine Co., labor and stock	10 60	
Chapman Valve Co., supplies	3 13	
	<hr/>	
<i>Amount carried forward</i>	\$3,443 94	

<i>Amount brought forward</i> . . .	\$3,443 94
A. W. Chesterton, supplies . . .	1 59
Walworth Mfg Co., supplies . . .	293 00
J. B. Rhines & Co., lumber . . .	59
Joseph Bruno, balance on contract	136 65
Bradford & Mansfield, supplies . . .	1 22
E. Bourke, teaming	2 00
George H. Holbrook, labor and stock	47 54

\$3,926 53

12 IN. SUCTION TO POND.

Paid labor, as per pay roll . . .	\$130 23
Braintree Wood and Lumber Co., lumber	15 16
Boston Bolt Co., supplies . . .	88
Fore River Engine Co., labor and stock	26 50

\$172 77

HYDRANTS AND REPAIRS.

Paid labor, as per pay roll . . .	\$24 84
Coffin Valve Co., hydrants and repairs	37 35

\$62 19

REPAIRS ON LINE.

Paid labor, as per pay roll . . .	\$35 68
Fore River Engine Co., labor and stock	13 74

\$49 42

METERS.

Paid H. R. Worthington, meter, . . .	\$34 40	
	<hr/>	\$34 40

PAINTING PUMPING STATION.

Paid Labor as per pay roll	\$103 39	
Wadsworth Howland & Co.,		
paint, oils, etc.,	23 75	
	<hr/>	\$127 14

GENERAL SUMMARY.

Paid Service Construction, . . .	\$1,754 21	
Pumping Station	2,206 90	
Maintenance,	841 20	
Miscellaneous	75 37	
Superintendent's salary and ex-		
penses	839 80	
Tools, etc.,	29 82	
Water Commissioners' salaries,		
etc. . . .	466 51	
Extension of Mains	3,926 53	
Repairs on Line,	49 42	
Hydrants and Repairs,	62 19	
Meters,	34 40	
12-in. Suction to Pond, . . .	172 77	
Painting Pumping Station, . . .	127 14	
	<hr/>	
Total 213 Orders		\$10,586 26

TREASURER'S REPORT.

PETER D. HOLBROOK, TREASURER.

Dr.

To balance per statement, Jan. 1, 1893,	\$1,609 13	
To cash received of John V. Scollard, collector of water rates	12,241 27	
To cash received of State National Bank Interest	50 03	
To cash received of Town of Braintree hydrant service	3,650 00	
To cash received of town appropriation for interest on water bonds	850 00	
To cash received of town for extension of water mains	3,000 00	
Balance in National Exchange Bank, subject to payment of coupons outstanding, Jan. 1, 1894,	980 00	
	<hr/>	\$22,380 43

Cr.

Cash paid on 213 orders drawn by water commissioners	\$10,586 26	
Cash paid for coupons outstanding	200 00	
Cash paid for coupons on water bonds	10,000 00	
	<hr/>	\$20,786 26
Balance in Treasury		1,594 17

We have examined the accounts of P. D. Holbrook, Treasurer Water Works, and find them correct and properly vouched for, and the balance \$614 $\frac{17}{100}$ (six hundred and fourteen and

seventeen-hundredths dollars) represented on hand, deposited in the State National Bank of Boston, said amount certified to by cashier of said bank, and also a balance of \$980 (nine hundred and eighty dollars) deposited in National Exchange Bank of Boston, said amount certified to by cashier of said bank.

L. W. MORRISON, }
CHAS. G. SHEPPARD, } Auditors.

Jan. 26, 1894.

TREASURER'S REPORT OF THE WATER LOAN SINK- ING FUND.

For payment of bonds issued July 1, 1887, and due July 1, 1917.

PETER D. HOLBROOK, TREASURER.

Dr.

Dec. 31, 1892: To amount of sink-	
fund	\$10,936 14
Appropriation received of town .	2,000 00
Interest on savings bank books	148 54
Interest on 4 Fitchburg Railroad	
bonds	160 00
Interest on 9 Municipal Lighting	
bonds	180 00

\$13,424.68

Cr.

Amount to credit of sinking fund invested as follows:

To 4 Fitchburg Railroad bonds of	
\$1,000 each	\$3,877 11
<i>Amount carried forward . . .</i>	<i>\$3,877 11</i>

<i>Amount brought forward</i> . . .	\$3,877. 11	
Municipal Lighting bonds, town of Braintree, 9 bonds, \$1,000 each	9,000 00	
Municipal Lighting bonds, town Braintree, 1 bond	500 00	
Amount in Braintree Savings Bank	47 57	
		<hr/>
		\$13,424 68

We, the undersigned, have examined the above accounts of the Treasurer of Water Loan Sinking Fund and find that the funds deposited in the several savings banks in 1892 have been withdrawn and invested in Municipal Lighting bonds of the town of Braintree to the amount of \$9,500 (ninety-five hundred dollars), and we recommend that said bonds be made payable to the trustees of said sinking fund.

DANIEL POTTER,	}	<i>Auditors.</i>
L. W. MORRISON,		
CHAS. G. SHEPPARD,		

Jan. 31, 1894.

TREASURER'S REPORT OF THE WATER LOAN SINK- ING FUND.

For payment of bonds issued June 1, 1891, and due June 1, 1921.

PETER D. HOLBROOK, TREASURER.

Dr.

Dec. 31, 1892: To amount of sink-		
ing fund	\$3,050 00	
Town appropriation	3,000 00	
Interest on Savings Bank books	62 11	
Interest on 6 Municipal Lighting		
bonds, \$1,000 each	120 00	
	<hr/>	
		\$6,232 11

Cr.

Amount to credit of sinking fund in-
vested as follows:

6 town of Braintree Municipal		
Lighting bonds, \$1,000 each .	\$6,000 00	
Deposit in Quincy Savings Bank	232 11	
	<hr/>	
		\$6,232 11

We have examined the foregoing accounts of the Treasurer of the Water Loan Sinking Fund and find that the funds deposited in the several savings banks in 1892 have been withdrawn and invested in Municipal Lighting bonds of the town of Braintree to the amount of \$6,000 (six thousand dollars), and we recommend that said bonds be made payable to the trustees of said sinking fund.

L. W. MORRISON, }
CHAS. G. SHEPPARD, } *Auditors.*

Jan. 31, 1894.

SUPERINTENDENT'S REPORT.

To the Water Commissioners of Braintree,

GENTLEMEN: The Superintendent of the Water Department respectfully submits his annual report for the year ending December 31, 1893.

Eighty-three new service pipes were laid during the year, kind of pipe, size, and number of feet laid as follows:

						Ft.	In.
$\frac{3}{4}$	Enamelled, iron	.	.	.	.	594	10
$\frac{3}{4}$	Galvanized iron	.	.	.	.	3,561	10
1	Galvanized iron	.	.	.	.	207	6
$\frac{5}{8}$	Lead pipe	.	.	.	.	971	2
$\frac{3}{4}$	Lead pipe	.	.	.	.	12	4
						<hr/>	
Total	.	.	.	.	.	5,347	8

EXTENSION OF SYSTEM DURING 1893.

						Ft.	In.
Six in. Pipe in Lisle st. from Liberty st. to							
Dead End	.	.	.	.	.	452	0
Six in. pipe in Fairview ave. from Pond st. to							
Dead End	.	.	.	.	.	369	0
Six in. pipe in Plain st. from Hancock st. to							
Dead End	.	.	.	.	.	1,703	4
Six in. pipe in French ave. from Holbrook st.							
to Dead End	.	.	.	.	.	295	6
Six in. pipe in Union st. from 6 in. Main West							
to Dead End	.	.	.	.	.	432	0

	Ft.	In.
Six in. pipe in Washington st., N. E., across Capens bridge to Dead End	1144	
Six in. pipe in Hydrant Branches	45	2
Total six in. pipe	3,411	4

12 IN. SUCTION MAIN

	Ft.	In.
In Little Pond West from Station to Crib	95	6

4 IN. PIPE.

In Blow off in Plain st., from 6. in Main to River	13	0
---	----	---

SERVICE MAINS.

	Ft.	In.
$\frac{3}{4}$ Pipe in private way off Commercial st. to Dead End.	101	2
Two in. pipe in Pleasant st., east from Dead End	50	0
Two in. pipe in Oak ave. from 6 in. Main Front st. to Dead End	270	8
Two in. pipe in Willow st. from 6 in. Main Front st. to Dead End	377	6
Total service pipe	698	2

Total service pipe in system Dec. 31, 1893, 59,951.0 ft. =
11.354 miles.

NUMBER, LOCATION AND DESCRIPTION OF VALVES
SET IN EXTENSIONS DURING 1893.

WM. E. MAYBURY, SUPERINTENDENT.

Valve Number.	STREET.	LOCATION POSITION.	VALVE SIZES.				
			12 in.	6 in.	4 in.	2 in.	3-4 in
148	On shore of Little Pond.	7 ft. west of Building foundation.	1				
149	Lisle.	West Line Liberty St.		1			
150	Fairview Ave.	South Line Pond St.		1			
151	Plain.	East Line Hancock St.		1			
152	French Ave.	North Line Holbrook ave		1			
153	Union.	West Line Liberty St.		1			
154	Washington.	West Side Capens Bridge 23 ft. 8 in. S. W. of Tel. pole.		1			
155	Washington.	At Maverick Oil Works in Centre of Small Gate way 3 ft. 6 in. South of fence.		1			
156	†Oak Ave.	North Line of Front St.				1	
157	†Willow.	North Line of Front St.				1	
158	†Private Way, off Commercial Blow-off.	South Line of Commercial					1
159	Plain.	On South Line Plain St. 35 ft. 6 in East of Cart bridge.			1		
Total Valves set, 1893,			1	7	1	2	1

CONSTRUCTION.

TURN TO OPEN.	BELL OR SPIGOT.	MAKER.
Left. Left. Left.	Bell. Thread† Stop cock‡	Rensselaer Mfg. Co. Chapman Valve Co. Newport Pat.

NUMBER, LOCATION AND DESCRIPTION OF HYDRANTS
SET, EXTENSIONS OF 1893.

Hydrant No.	STREET.	LOCATION POSITION.	No. Nozzles, 2 Hose, 1 Str.	Length of Connection, 6 in.
148	Lisle.	441 ft. west of Liberty street.	1	7ft. 6in.
149	Fairview av.	322 ft. south of Pond street.	1	9ft.
150	Plain.	635 ft. 6 in. east of Cart bridge.	1	6ft. 6in.
151	Plain.	1449 ft. " " "	1	6ft. 6in.
152	French av.	260 ft. 6 in. north of Holbrook avenue.	1	6ft. 3in.
153	Union.	420 ft. west of Liberty street.	1	9ft. 5in.
Total			6	

CONSTRUCTION.

TURN TO OPEN.	BELL, PLAIN OR BOLTED.	FROST CASE.	MAKER.
Left.	Bolted.	No.	Coffin Valve Co. (improved).

Total valves in operation Dec. 31, '93, 159.

Total hydrants in operation Dec. 31, '93, 153.

TOTAL PIPE IN OPERATION DEC. 31, 1893.

					Ft.	In.
12-in.	.	.	.	.	5,426	6
10-in.	.	.	.	.	10,407	10
8-in.	.	.	.	.	8,280	6
6-in.	.	.	.	.	72,863	0
4-in.	.	.	.	.	8,617	0
2-in.	.	.	.	.	3,406	10
1-in.	.	.	.	.	448	2
$\frac{3}{4}$ -in.	.	.	.	.	101	2

Total pipe in system Dec. 31, '93, 109,551 = 20.748 miles.

PUMPING RECORD FROM JANUARY 1, 1893 TO
JANUARY 1, 1894.

MONTH.	HOURS PUMPING.	GALLONS PUMPED.	DAILY AVERAGE.	POUNDS OF COAL.	GALLONS PUMPED PER 100 LBS. COAL.
January.	185 h. 30m.	8,559,824	276,123	40,744	21,008
February	174 h. 40m.	7,784,793	278,028	37,017	21,030
March.	163 h. 40m.	7,684,258	247,879	36,226	21,212
April.	150 h. 50m.	7,310,769	243,693	32,458	22,523
May.	184 h. 55m.	10,338,354	333,495	37,420	27,629
June.	209 h. 35m.	11,686,089	389,536	39,255	29,515
July.	244 h. 35m.	9,544,888	307,900	44,184	21,602
August.	225 h. 40m.	10,302,027	332,324	40,446	25,470
Sep'ber.	187 h. 50m.	8,811,724	293,724	37,738	23,349
October.	179 h. 50m.	8,090,396	260,980	34,589	23,390
Nov'ber.	164 h. 40m.	7,478,527	249,284	32,349	23,118
Dec'ber.	172 h. 30m.	7,989,897	257,739	34,770	22,978
TOTALS .	2,244 h. 15m.	105,581,546		447,196	
Daily Average.	6 h. 9m.	289,264		1,226	23,568

In regard to the pumping record I wish to say that there have been twenty-six days during the season when we have pumped the gallery dry, admitting air to the pumps. In addition to the above on thirty-eight days we have left only a few inches of water in the well.

There were times this season when the gallery was low that the consumption seemed to be unnecessarily large. During these times we were compelled to run the pumps night and day, and while so doing we could run them only at a very slow speed as we could not get a sufficient quantity of water from the gallery.

In being compelled to run so slowly, we could not get an accurate account of the gallons pumped as our counter will not register when the pumps run at a slow speed. On this account I consider the report of gallons pumped only an approximate one.

There have been times through the middle of the day this season when our stand pipe was but partly full and the gallery was practically exhausted.

If we should be unfortunate enough to have a large fire or a burst in our mains, or for any other reason we should lose a large quantity of water it would leave us in very bad shape. It would take a long time to make up for the loss, as the water from the springs flows into the gallery very slowly during the low water or dry season.

12 INCH SUCTION TO LITTLE POND.

There has been a twelve inch suction main extended into Little Pond to be used in case of fire, not having any connection with the gallery but to be connected with the pumps, (see engraving of suction main and proposed connection to pumps).

The pipe has a strainer or crib on the end, which is suspended in about mid-water; it is four feet from the lowest water line of this season to the top of the inner strainer, it is also three feet from the bottom inlet of strainer to bottom of pond; there is outside of strainer a large crib of galvanized iron wire netting, $\frac{1}{8}$ in. mesh to prevent any small substance from getting into suction main. I believe the suction main will be of great advantage if an

emergency should arise. It seems to me that it would be well to look into the matter of extending the present gallery or making some provision for a larger supply of spring water such as we now supply.

There are many ways in which this could be done. It could be done by making another gallery north of the present one.

It might be done by driving artesian wells in the present gallery or on the outside of the same.

I think the latter would be an unsatisfactory way of getting more water, as we would not know the quality we should get.

I think the best way to get a better supply of water and to be sure of getting the same quality as we now have is to extend the present gallery at the northerly end where springs appear most abundant. My reason for bringing this subject up before you is this. I understand that the majority of the people in our town are determined on using nothing else but the spring water or in other words the water from the gallery. In order to carry out the desire of the public, there should be something done to procure a larger storage of spring water for the dry season.

If not, we will be compelled to run the pumps night and day, or to admit the water from Little Pond.

Running all night adds greatly to the cost of pumping as we must run at a slow speed, with the same cost for labor, and practically the same for fuel.

Extremely slow running is also detrimental, as our lift of water is always changing and it is impossible to adjust our pumps to a nice running point.

PUMPS.

I would recommend the overhauling of the compound pump, as there are several parts of it which need repairing. I took the low pressure pistons out this summer and found them dropped down so as to allow the steam to leak by. I have every reason to believe that the high pressure pistons also need adjusting. I found during the season that the compound pump would break the springs on the water valves as fast as they could be renewed.

It is an old result, as it has happened ever since the pumps were first started. We have placed a new set of springs of a different style, with new bolts, and find them giving the best of satisfaction.

HYDRANTS.

We have taken out and replaced six of the Coffin Valve Company's hydrants that were leaking badly. We have also taken out one of the Whittier Machine Company's hydrants and replaced it with one of the Coffin Valve Company's improved. There are still some few hydrants which need attention when the proper time comes.

We are using a better grade of Coffin hydrants than ever before used. It is termed the Improved Coffin hydrant. I believe it is far superior to the old style.

GATES.

In looking over the pipe lines and operating a number of the gates I found it necessary to repack a number of them.

IMPROVEMENTS.

The scales formerly used in the coal bin have been placed at the entrance of the fire room, the ground was excavated and scales placed in a frame set flush with the floor.

We have also built a rack in the storeroom for pipe, fittings, etc.

There have been electric lights put into the pumping station, which are of great convenience.

The building was painted on the inside in a thorough manner; the woodwork on the outside was painted two coats.

The lawn has been graded and sown down in grass and there have been vines set out to ornament the building.

There has been an iron manhole cover placed over well at right of entrance to pumping station, as the old one was decayed and unsafe.

There has been a furnace purchased for melting lead used on main pipe extensions, also a tripod derrick to be used in pipe laying, setting hydrants, etc.

PUMPING STATION.

The building is in very good condition, except some of the floor timbers of engine room, which should be replaced.

STAND PIPE.

There were a few small repairs required early this spring. The ice had broken off the braces holding the upper end of overflow pipe—this repairing was all done in a thorough manner. The stand pipe is in fairly good condition, still, as a matter of economy, it should be calked in a few places and painted inside and out one coat. I believe one coat of paint once in two or three years is better than two coats once in seven years.

It seems to me if the scrubs and straggly trees were removed from the stand pipe lot it would improve the general appearance, also there should be something done to prevent the dumping of rubbish upon and around said lot.

DAMPER REGULATOR.

I wish to call your attention to the necessity of an automatic damper regulator. It would be a great saving of fuel; it would add to the life of the boilers, as it would not be necessary to be opening and closing the draft door, admitting the cold air and causing a certain amount of contraction, which is very detrimental. I have received a letter from Locke Brothers agreeing to save us 10 per cent. of fuel with their machine, and offering it on four months' trial, and further agree to give us the best article they make, put up all complete to our satisfaction, for a very small sum.

I would also recommend the placing of a recording guage in our pumping station. If there should ever arise a question as to how much pressure we had on any certain date during the day or night, we could not answer it, unless by chance some one happened to be at the pumping station. These recording gages are necessary for a complete record of pumping and water consumption. I am satisfied that if we had one during the past season we would have had an opportunity to see when there had been hydrants opened without permission,

through the day or night. I think it would be one of the most beneficial additions we could make to the engine room, the card taken from this recording gage would be placed on file, making a true record ready for reference at all times.

LEAKAGE ON MAINS AND SERVICES.

There have been 8 leaks on mains during the year and 7 leaks on service pipes. I think that the use of lead services and Chapman stop and waste valves should be encouraged, as an advantage to the consumer and to the system.

I have stated here, as far as I can see, the exact state of the system at the present time and such improvements as I think beneficial or necessary for the future. I have endeavored to acquaint myself with the history of the plant for better understanding the growing needs due to increased water consumption. I consider that a thorough understanding of the work is due to the townspeople who are interested, and their personal investigation is cordially invited in such matters as are not fully set forth in this report.

Respectfully submitted,

WILLIAM E. MAYBURY,

Superintendent.

SCHEDULE OF PROPERTY OF DEPARTMENT..

AT PUMPING STATION.

- 1 desk.
- 1 settee.
- 3 arm chairs.
- 1 nickle clock.
- 1 pair steps.
- 1 brass tray with 4 oil cans.
- 1 thermometer.
- 1 pair scissors.
- 1 hand hammer.
- 1 20-in. monkey wrench.
- 1 9-in. monkey wrench.
- 1 6-in. monkey wrench.
- 1 12-in. Stilson wrench.
- 1 malleable iron oil can.
- 1 dust broom.
- 2 cylinder oil cans.
- $\frac{1}{2}$ doz. No. 2 Bohanan padlocks.
- $\frac{1}{2}$ doz. composition valve plates.
- $\frac{1}{4}$ lb. sealing wax.
- $\frac{1}{2}$ doz. rawhide tappet washers.
- 1 air chamber glass.
- 900 plumbers' cards.
- $\frac{1}{2}$ doz. sheets emery cloth.

BOILER ROOM.

- 1 large iron hoe.
- 1 large corn hoe.
- 1 slice bar.
- 1 poker.
- 1 steam tube cleaner.
- 1 boiler tube scraper.
- 1 coal scoop.

- 1 dust pan and brush.
- 50 ft. $\frac{1}{2}$ -in. hose.
- 1 broom.
- 2 water pails.
- 1 reflection lantern with lamp.
- 3 5-gallon oil cans.
- 1 gallon machine oil.
- 1 coal maul.
- 1 2-qt. oil can.
- 26 gallons vacuum cylinder oil.

STABLE AT REAR OF TOWN HALL.

- 1 bay horse.
- 1 express wagon.
- 1 democrat wagon.
- 1 goatskin robe.
- 1 street blanket.
- 1 stable blanket.
- 1 canvas horse cover.
- 1 circingle.
- 1 express harness.
- 1 light harness in poor condition.
- 1 box salt.
- 1 currycomb.
- 1 card for mane.
- 1 corn brush.
- 1 hair brush.
- 1 monkey wrench.
- 1 box wrench for democrat wagon.
- 1 wheel jack.
- 1 manure fork.
- 1 pitchfork.
- 1 square pointed shovel.
- 2 grain barrels.
- 1 bushel corn.
- 1 bushel oats.

- 1 4-qt. measure.
- 1 2-qt. measure.
- 1 pt. glycerine.
- 175 lbs. straw.
- 75 lbs. hay.
- 1 box harness soap.
- 2 collar pads.
- 1 halter.
- 2 hitch ropes.
- 1 sponge.
- 1 broom.
- 1 water pail.
- 1 whip.
- 2 boots.
- 2 rubber springs for wagon.

STORE ROOM—SERVICE TOOLS.

- 2 bit braces.
- 1 extension bit.
- 1 $\frac{3}{4}$ -in. bit.
- 1 $1\frac{1}{4}$ -in. bit.
- 1 $\frac{7}{8}$ -in. ship auger.
- 1 1-in. ship auger.
- 1 screwdriver.
- 1 clawhammer.
- 1 work bench and vice.
- 1 20-in. monkey wrench.
- 1 18-in. monkey wrench.
- 1 10-in. monkey wrench.
- 1 24-in. Stilson wrench.
- 2 18-in. Stilson wrenches.
- 1 36-in. Stilson wrench.
- 2 pipe cutters.
- 1 ratchet die stock.
- 2 $\frac{3}{4}$ -in. dies and 1 $\frac{1}{2}$ -in. die.
- 1 die stock with dies from $1\frac{1}{4}$ in. to 2 in.

- 1 die stock with dies from $\frac{1}{4}$ in. to 1 in.
- 4 pairs tongs.
- 1 $\frac{3}{4}$ -in. nipple holder.
- 1 new ratchet for tapping machine.
- 1 old ratchet for tapping machine.
- 1 combination drill and tap, 1-in.
- 1 $\frac{3}{4}$ -in. pipe tap.
- 1 1-in. corporation holder.
- 1 malleable iron oil can.
- 1 75-foot tape line, in poor condition.
- 1 Hall tapping machine and gaskets for same.
- 2 service wrenches.
- 1 washer cutter.
- 2 water pails.
- 1 2-gallon can for gasoline.
- 1 gasoline furnace.
- 1 solder copper.
- 1 10-lb. lead pot.
- 1 small ladle.

CONSTRUCTION TOOLS.

- 1 large tool box.
- 18 short handle shovels, round points.
- 3 long handle shovels, round points.
- 1 short handle shovel, square point.
- 30 picks.
- 25 pick handles.
- 1 grub hoe.
- 1 spade.
- 2 tampers.
- 1 diaphragm pump and brake.
- 1 length suction hose and spanner.
- 2 crowbars.
- 1 pinch bar.
- 1 hand saw.
- 1 dog chisel.
- 5 diamond point chisels.

- 2 cold chisels.
- 2 sets calking tools and tool box.
- 2 yarning irons.
- 1 calker's hammer.
- 1 6-in clip and clamp screw.
- 1 6-in clip, in poor order.
- 1 striking hammer.
- 1 hand hammer.
- 1 doz. stone drills and wedges.
- 1 wheel lead furnace and kettle.
- 1 poker for furnace.
- 1 small lead kettle.
- 2 ladles.
- 1 pipe laying derrick and fall for same.
- 1 large rope fall with self-locking appliance.
- 2 rope straps.
- 2 oak skids.
- 1 sledge for rock work.
- 97 lbs. of rope.
- 3 gate wrenches.
- 1 pair hydrant tongs.
- 3 hydrant wrenches.
- 11 lanterns and globes.
- $\frac{3}{4}$ of a barrell of clay.
- 10 lbs. of yarn.
- 1 large pair wood clamps for hydrants.
- 3 water pails.
- 1 extra $\frac{1}{2}$ -grate for lead furnace.
- 1 dredging scoop and 2 handles.
- 1 wrench for Coffin valve seats.
- 1 $2\frac{1}{2}$ -in. hose nipple for Coffin hydrants.

ENGINE AND BOILER STOCK.

- 10 second-hand pump springs, bronze.
- 48 composition pump spring bolts.
- 3 hand hole plate gaskets.
- 12 tons Cumberland coal.

- 5 lbs. round lead packing.
- 200 lbs. cotton waste.
- 5 lbs. Jenkins' packing.
- 2 lbs rubber packing.
- $\frac{1}{4}$ lb. Tupper's packing.
- 7 lbs. Eureka packing.
- 4 furnace door linings.
- $\frac{1}{2}$ can Gradey's polish.
- 6 bottles Standard oil polish.
- 1 set Knowlton's rod packing, $3\frac{3}{16} \times 2$ ins.
- 1 set Knowlton's rod packing, $2\frac{1}{2} \times 1\frac{7}{16}$ ins.
- 1 hand brake for boiler feed pump.
- 12 socket wrenches for pumps.
- 2 S fork wrenches.

MAIN PIPE STOCK AT PUMPING STATION—GLOBE SPECIALS.

- 3 branches, 4x4x4 ins.
- 1 plug, 4-in.
- 2 sleeves, 4-in.
- 7 branches, 6x6x4-ins.
- 1 Y branch, 6x6x6-ins.
- 1 sleeve, 6-in.
- 1 6x6x6-in. T, damaged.
- 1 45° bend, 6-in.
- 4 tapped plugs, 6-in.
- 2 plugs, 6-in.
- 2 plugs, 8-in.
- 2 branches, 8x8x6-ins.
- 3 reducers, 8 to 6-in.
- 4 sleeves, 8-in.
- 2 plugs, 10-in.
- 1 reducer, 10 to 6-ins.
- 1 10x10x6-in T, damaged foundry special.
- 1 branch, 10x10x6ins., foundry special.
- 1 sleeve, 12-in.
- 1 branch, 12x12x4-ins.

3 12x12x6-in. Ts, damaged foundry specials.
 6 lengths 4-in. cast pipe.
 3 lengths 6-in. cast pipe.
 1 length 10-in. cast pipe,
 4 lengths 12-in. cast pipe.
 17 lengths 10-in. cast pipe, cracked.
 1 length 12-in. cast pipe, cracked.
 15 short pieces of 4-in. cast pipe.
 50 short pieces of 6-in. cast pipe.
 2 short pieces of 8-in. cast pipe.
 6 short pieces of 10-in. cast pipe.
 7 short pieces of 12-in. cast pipe.
 1 Coffin gate hydrant, in good repair.
 1 Coffin gate 8-in. hydrant, to be repaired.
 4 Whittier Machine Co's. hydrants, worthless.
 1 Coffin hydrant valve improved make.
 5 Coffin hydrants valves and seats in good repair.
 3 Coffin hydrants valves and seats to be repaired.
 1 No. 6 gate box base, round.
 3 No. 160 gate box bases, oval.
 6 No. 16 gate box bases, round.
 1 rubber valve for Ludlow hydrant.
 2 wrenches for setting Ludlow hydrant valves.
 1 large box wrench for Coffin hydrants.
 20 lbs. pig lead.

AT ALMSHOUSE SHED.

1 Rensselaer gate, 6-in.
 11 Rensselaer gates, 8-in.
 5 Rensselaer gates, 10-in.
 14 Rensselaer gates, 12-in.
 3 plugs, 4-in.
 1 branch, 6x6x4-in., globe special.
 1 branch, 6x6x4-in., foundry special.
 1 plug, 8-in.
 5 sleeves, 8-in.

1 sleeve, 10-in.

1 plug, 12-in.

PUMPING STATION STORE ROOM.

SERVICE STOCK.

27 ft. $\frac{1}{2}$ -in. galvanized iron pipe.
 103 ft. $\frac{3}{4}$ -in. galvanized iron pipe.
 116 ft. 1-in. galvanized iron pipe.
 48 $\frac{1}{2}$ ft. 1 $\frac{1}{4}$ -in. galvanized iron pipe.
 6 ft. 2-in. galvanized iron pipe.
 235 ft. $\frac{3}{4}$ -in. enamelled iron pipe.
 50 ft. 1-in. enamelled iron pipe.
 36 ft. 2-in. enamelled iron pipe.
 431 lbs. $\frac{5}{8}$ -in. lead pipe, 2 $\frac{1}{2}$ lbs. per ft.
 54 lbs. $\frac{3}{4}$ -in. lead pipe, 3 lbs. per ft.
 3 $\frac{1}{2}$ -in. galvanized elbows.
 6 “ galvanized Ts.
 8 “ galvanized caps.
 7 “ galvanized cap drop Ts.
 7 “ galvanized unions.
 8 $\frac{1}{2}$ to $\frac{3}{4}$ -in. galvanized reducing coupling.
 16 $\frac{3}{4}$ -in. galvanized elbows.
 14 “ galvanized Ts.
 7 “ galvanized drop Ts.
 3 “ galvanized close nipples.
 3 “ galvanized unions.
 9 “ galvanized caps.
 27 “ galvanized plugs.
 27 “ galvanized couplings.
 8 “ galvanized 45-degree elbows.
 1 1 $\frac{1}{4}$ -in. galvanized 45-degree elbow.
 1 1 $\frac{1}{4}$ -in. galvanized union.

13 2-in. galvanized Ts.

ENAMELLED IRON FITTINGS.

8 $\frac{3}{4}$ -in. enamelled 45-degree elbows.
 27 " enamelled elbows.
 13 " enamelled Ts.
 9 " enamelled drop Ts.
 12 " enamelled plugs.
 6 " enamelled caps.
 12 " enamelled close nipples.
 10 1-in. enamelled Ts.
 7 " enamelled plugs.
 2 " enamelled close nipples.
 6 " enamelled unions.
 80 " enamelled couplings.
 1 1x1x $\frac{3}{4}$ -in. enamelled T.
 4 1 $\frac{1}{4}$ -in. enamelled close nipples.
 4 " enamelled couplings.
 1 " enamelled iron plug.
 1 1 $\frac{1}{2}$ x1 $\frac{1}{4}$ -in. enamelled reducing bushing.
 3 2x2x $\frac{3}{4}$ -in. enamelled iron Ts.
 13 2-in. enamelled iron plugs.
 99 2-in. enamelled iron couplings.
 3 2-in. enamelled 45-degree elbows.
 8 2-in. enamelled iron elbows.

COMMON IRON FITTINGS.

1 $\frac{3}{4}$ -in. 45-degree elbow.
 1 1 $\frac{1}{4}$ x1 $\frac{1}{2}$ -in. reducing bushing.
 1 1 $\frac{1}{2}$ -in. plug.
 1 1 $\frac{1}{2}$ x $\frac{1}{4}$ -in. reducing bushing.
 2 2x $\frac{3}{4}$ -in. reducing bushing.
 5 2x1-in. reducing bushing.
 8 2x1 $\frac{1}{2}$ -in. reducing bushing.

BRASS FITTINGS.

4 $\frac{3}{4}$ -in. corporation stops.

- 1 $\frac{3}{4}$ -in. cellar stop and waste lever handle.
- 37 " female solder nipples.
- 4 " Chapman valves, S. W. T. handle.
- 2 " Chapman valves, S. W. W. handle.
- 4 " male solder nipples.
- 2 " sill cocks.
- 1 $\frac{1}{2}$ in. plain faucet.
- 1 " male solder nipple.
- 10 $\frac{5}{8}$ -in. sidewalk stops for lead pipe.
- 1 1-in. cellar stop and waste.
- 1 1-in. sidewalk stop and waste.
- 3 1-in. corporation stops.
- 1 $1\frac{1}{4}$ -in. solder nipple.
- 1 2-in. cellar stop and waste.
- 1 $\frac{3}{4}$ -in. lead connection.
- 1 1-in. lead connection.
- 1 2-in. lead connection.
- $\frac{1}{2}$ doz. lockups seals for stop and waste valves.
- 15 wheels for shut-off rods.
- Small piece leather for washers.
- 5 $\frac{1}{2}$ -in. crown meters.
- 16 $\frac{3}{4}$ -in. cast iron pipe clamps.
- 6 Buffalo service boxes.

MISCELLANEOUS

- 7 roofing slates.
- 15 lbs. sheet lead.
- 1 iron drip pan.
- 1 2-qt. measure.
- 1 Fairbanks' scales complete.
- 1 22-ft. ladder.
- 1 20-ft. 6 in. ladder.
- 1 16-ft. ladder.
- 1 9-ft. ladder.
- 1 lawn mower.
- 7 pieces 8-in. drain pipe.

- 1 piece 6-in. drain pipe.
- 1,300 ft. hemlock lumber.
- 1 hand oil lamp.
- barrel air slack lime.
- 1 barrel air slack cement.
- 2 carpenters' horses.
- 1 iron wheelbarrow.
- 1 sand screen.
- 1 old wood wheelbarrow, damaged.
- 2 contractors' wheelbarrows, damaged.
- 3 coke barrels.
- 1 mortar hod.
- 1 top to democrat wagon.
- 1 5-gallon oil can.
- 2 window sashes, 9x14-in. lights.
- 1 old heater coil.
- 1 ft. trash wood.
- 600 lbs. cast iron junk.
- 1 length 10-in. drain pipe.
- 2 reflecting lanterns and lamps.
- 1 rack for pipe fittings.
- 20 bolts, $2\frac{1}{2} \times \frac{3}{4}$ in.
- 36 lbs. miscellaneous bolts.
- 1 pentagon nut for coffin hydrant.
- 88 lbs. of old brass.
- 1 blank flange, 18-in. diameter.
- 1 old Coffin hydrant, rod and valve.
- 99 lbs. wrought iron junk.
- 2 small pieces wire netting.
- 1 floor mop.
- 1 gallon black paint.
- 1 qt. boiled oil.
- 1 pt. liquid drier.
- 1 lb. vermilion paint.
- 1 varnish brush.
- 1 large flat brush.

- 1 small flat brush.
- 37 $\frac{1}{2}$ -in. washers.
- 1 pair Union flanges, $2\frac{1}{2}$ -in.
- $1\frac{1}{2}$ lbs. spikes.
- 2 lbs. nails.
- 1 large eye bolt.

MISCELLANEOUS TOOLS.

- 1 hay scythe and snath.
- 1 brush scythe and snath.
- 1 cycle.
- 3 garden hoes.
- 1 steel rake.
- 1 hay rake.
- 1 work bench.
- 1 Smith combination vice.
- 2 hammer handles.
- 1 iron square.
- 1 saw and horse.
- 1 plumb bob.
- 3 files, in poor condition.

REPORT OF THE COMMITTEE ON DRAINAGE AND SEWERAGE OF THE TOWN OF BRAINTREE.

The town appointed this committee at the April meeting, 1889.

Within the first year of the appointment of this committee it called on the State Board of Health to enquire whether the Board would not send to Braintree an engineer or other competent member of the Board to view the town and suggest a plan for its drainage and sewerage. The Board said they had no authority to take such action and after several interviews and presentations of plans by the committee, during that and the next year, the Board positively declined to render the assistance asked for. The Board required the employing of an engineer who should prepare complete plans of the contemplated work and these plans must be submitted to it for approval or rejection.

In April, 1890, your committee asked of the town an appropriation of one hundred and fifty dollars (\$150), which the committee hoped would give to it sufficient survey and plans, by an engineer, to secure the advice of the State Board. Before using any of this appropriation for the purpose named, your committee called together a large number of influential citizens of the town to advise it as to the propriety of going forward with the sewerage and drainage matter.

At this meeting there was some difference of opinion, but upon motion it was voted the committee ought to proceed.

It was afterwards found that the State Board would not be satisfied with the limited survey and plan proposed by the committee, and for which the town had voted the one hundred and fifty dollars (\$150), but that the surveys and plans must be complete, involving the expenditure of eight to twelve hundred dollars (\$800 to \$1200).

To procure so complete a survey and plan first involved the expenditure of fifty dollars (\$50) for a general plan and estimate of the whole work.

In the fall of 1892 the committee secured the services of Messrs. Howland and Ellis, civil engineers, and they submitted to your committee plans and estimates for the drainage and sewerage of the three villages of the town and their connections and estimated the same could be done for ten to twelve hundred dollars (\$1000 to \$1200).

Your committee then asked of the town an appropriation of eight hundred dollars (\$800) for engineer's services, and the town voted this sum.

After some months, and getting estimates from other engineers, your committee concluded a contract with Messrs. Howland and Ellis to perform the work required, agreeably to their plans and estimates, for the sum of eight hundred dollars (\$800), and this sum has been paid them.

The report of Messrs. Howland and Ellis to your committee is herewith submitted.

Their plan, showing their surveys for sewerage and surface and deep drainage, is in the town safe, in the care of the Selectmen, and explanation of the same will be given to the town, if required, by one of the engineers.

Your committee, in few words, would say that the plan is such that it can be used by one section or all sections of the town, also, that it can be made available for any system of sewerage or drainage that the town may wish or be obliged to adopt.

As your committee considers the part of the plan relating to surface drainage scientific, complete, applicable to all parts of the town, it would suggest that the town, in making expenditures for surface drainage, should be governed by this plan.

No doubt the town might save much by so doing, and the plan would become very valuable.

T. H. DEARING,
A. E. AVERY,
*W. A. KANE,

Drainage and Sewerage Committee.

*Mr. Kane was appointed to fill the vacancy made by the resignation of Mr. H. M. White in April, 1893.

REPORT OF HOWLAND & ELLIS ON SEWERAGE
AND DRAINAGE SYSTEM.

BOSTON, MASS., Aug. 22, 1893.

DR. T. H. DEARING, Chairman Committee on Sewerage, Braintree, Mass.

DEAR SIR:—

We beg leave to submit the following report in relation to the question of drainage and sewerage for the town of Braintree:

When this work was undertaken by us it was with the understanding that the sewage was to be disposed of upon some suitable tract of land within the limits of the town of Braintree, and all the preliminary work was done with this object in view, but, as after consultation with the State Board of Health, it was found that there was no suitable place within your territory that they would consent to the use of for this purpose, this idea had to be abandoned and the question of the disposal of the sewage left an open matter. We have, therefore, devoted our time to preparing plans for a system of sewerage and drainage that will serve to collect the sewage at the lowest point in town, namely on the borders of Weymouth Fore River, at East Braintree, and to collect and dispose of the surface water at suitable points into the Monatiquot River.

Accompanying this report are four plans, reference to which will be had in this report.

No. 1 is a general plan of the sewerage system, showing in double red lines the location of the main sewer; in single red lines the locations of the street sewers, and in single blue lines the location of the sub-drains.

Sheet No. 2 shows the details of different parts of the sewerage system. Sheet No. 3 shows in blue the location of catch basins and sewers to dispose of the surface or storm water. Sheet No. 4 gives details of construction in relation thereto.

In preparing for this work we made careful topographical surveys of your entire town, determined the levels and grades of all your

streets that are shown on plans, and from these levels determined the grades of the sewers, and from the grades and their lengths the sizes that were necessary.

It was at once evident that no system of sewers that would be continuous, and in which the main collecting sewer would run entirely through the streets of the town, was possible. We, therefore, located the main sewer in the valley at the side of the Monatiquot River, commencing at Quincy avenue in East Braintree and ending at Hancock street in South Braintree, in the hollow just south of the corner of Hancock, Pearl and Washington streets.

Most of this sewer will have to be laid on private grounds and may follow the lines indicated, or vary slightly from them, according as terms for the purchase of right of way can be had. If the line is changed from that shown on the plans no change in the grade should be had, as they are at such points as will best serve the entire town, and for considerable distance the fall is as slight as is permissible in order to keep the sewer clean.

To the east of Quincy avenue the sewer may be extended upon a slightly falling grade to such point as may be finally determined upon as the location of the pumping station. It will undoubtedly be necessary to collect the sewage at some such point and pump it over to some disposal field outside of the town, or to connect with the sewerage system of some adjoining town or city. Additional legislation and considerable conference with the adjoining municipalities will be necessary before this can be definitely determined upon.

The location of this main sewer is so clearly defined upon Plan No. 1 that no detailed description will be necessary beyond stating that as far as has been practicable the sewer has been located upon existing streets, but this has occurred only to a slight extent, namely, through a portion of Commercial and Adams streets.

In locating and deciding upon sizes of sewers for the streets, economy in construction has been observed, and small groups, by the use of which smaller sizes of pipes can be used, have been

given the preference to larger groups where the size would have been increased.

In determining the sizes of pipe, the probable future growth of the town has been considered, and while it will be observed that nothing less than 8 inches for sewage has been used, we believe this will be found none too large in the near future. A few cents per foot could have been saved in using a smaller size, namely, in some instances 7 inch and in others 6 inch, but on account of the liabilities of stoppage and the expense which would be incurred in case of any such stoppage; it has not been deemed best to use less than 8-inch pipe.

The other sizes of pipe have been so graded that they will take care of the maximum amount of sewage expected, when running not to exceed one half full, thus allowing plenty of leeway for emergency or extraordinary occasions and also practically precluding any possibility of stoppage.

The total amount of main sewer called for on this plan, from Quincy Avenue to Hancock St. is three miles and 2,560 feet. The total length of other sewers for house purposes is 21 miles 610 feet, while the total length of sub-drain is 20 miles 2860 feet, making a total of pipe and brick sewers for one or the other purpose, of approximately 45 miles. The sub-drains, however, need not be laid to any greater extent than is considered necessary, and as the nature of the soil, as the sewers are built, would seem to require. Their use is to facilitate the laying of the main sewers in wet ground and to permanently lower the level or the ground water in the territory through which they pass. They do not discharge into the main sewer, but into such water courses as are convenient, principally the Monatiquot River.

In building these sewers or any portions of the system, care should be taken by your engineer in charge that they be laid true to line and grade, as any slight deviation from either one is liable to impair their efficiency to a large degree.

Manholes or lantern holes are located at every change of grade and line and flush tanks at the upper end of each line.

It is preferred in the construction of the system that the flush

tanks be built and introduced substantially as shown, but a simple manhole may be introduced in their places, and the flushing done periodically by means of hose leading from your water works hydrants. The large rush of water that it is possible to obtain from a flush tank is however preferable and would in the end result in a more economical and better use of water than to depend upon the hose. The extra cost of the flush tanks over a simple manhole, to wit, \$22 each, should not prevent their use.

Appended are various details in connection with this work. First we give the location of the main sewer with its length and sizes. Second, a list of the street sewers with their lengths and sizes and the lengths and sizes of the sub-drains, if the latter are used. We next give a summary of both these, which shows upon one sheet the total amount planned for. We next give estimates of cost, first for the main sewer, second for the street sewers without sub-drains, and third the extra cost to lay sub-drains with the street sewers.

We next give the numbers, locations and elevations of the different hydrants of the town, the tops of the brass nuts on which have been used as bench marks, and by the use of these bench marks the grades of the sewers, whenever you build any portion or the whole can be determined.

On the plans the red figures underlined with a red line indicate the levels of the centres of the sewers.

We next append specifications for the construction of these sewers. These specifications and various papers are, we believe, of sufficient detail to enable anyone to carry out the general plan as proposed.

SURFACE DRAINAGE.

In studying your town to present a general plan for the disposal of storm or surface water, the topographical surveys previously referred to have been of great value. The proximity of the Monatiquot river to your villages, furnishes a place of disposal that is quite convenient.

Commencing at such points as are the natural outlets of the different basins throughout your town, we have indicated on plan

No. 3, sewers of such size as will be sufficient to take care of the drainage from that territory in case of maximum storm.

These sewers are gradually decreased in size until they reach a size so small that water that will flow through them can well be taken care of in the gutters, after which no sewer pipe is indicated in the plan, it being left with the local authorities to so curb and pave the gutters above these points that the storm-water can run in them safely and be received in the pipe and brick sewers by means of catch basins located substantially at the points indicated.

The streets of your town are principally now, or will be in the near future, macadamized, and as such streets shed the largest proportion of the water falling upon them, we have calculated to take care of the entire water that falls within the limits of your highways, and to that added a per cent. which we believe to be sufficient to take care of the water falling upon adjacent territory that may flow over and into the highways.

We have made no estimate of the cost of this entire system, but do append a sheet giving details of costs of the different kinds of catch basins, gutters and sewers, so that from this list the cost of any amount of any kind of construction that you may decide upon at any time can be estimated.

In building gutters the Belgian block used in connection with an edgestone or curb is of course preferable as being the most durable and efficient; a very good common stone gutter can, however, be made either with or without the curb. Details of both kinds of this construction are shown on Plan No. 4, and details of the cost per foot are given.

The water from no gutter should be led directly into any storm sewer, but a catch basin of suitable form should intervene.

The form of catch basin with a side inlet, shown on plan No. 4, is preferable, although the top inlet is quite commonly used. The objections to the top inlet are that they readily clog and in case of a storm have to be continually watched to see that the floating debris does not collect and prevent the water from flowing into them; whereas in the side inlet the opening is so large that nearly

everything that can float in the water in the gutter will be swept into the catch basin and there deposited.

The necessity of catch basins is obvious, as it prevents clogging and fouling of the main sewers and affords the cheapest and best method of cleaning.

All gutters and catch basins should, of course, be kept as clean as possible so as to prevent the accumulation of too much debris in the case of storm.

No grades or exact locations of these sewers for storm-water have been given, as they are of such size as when laid to conform to the natural grades of your streets, they will take care of all the water that will be led to them. They can, therefore, be laid on one side or the other of your streets and at such depth as will least interfere with other pipes or structures in said streets.

The estimates are based upon an average depth of $4\frac{1}{2}$ feet from the surface of the ground to the centre of the sewers. Any greater or less depth will of course increase or decrease the cost somewhat in proportion.

In laying these sewers they should be laid under the same general specifications as are given for laying the pipe sewers or the sewerage system itself.

In laying gutters, the natural grade of the street as it now exists can be followed, except that all sharp angles or changes in grade should be avoided; your local engineer or superintendent of streets being competent to give such grades or lines as will produce the best results.

IN GENERAL.

For that section of your town lying north and west of Washington street and Hollis avenue no plans have been made for the sewerage disposal nor for storm water, beyond allowing the latter to discharge itself into the natural channel that is found at the foot of the hill.

There are several houses in this section that are so low that the sewage from them cannot be taken across to the Washington street system, and so discharged into the main sewer, without go-

ing to an excessive depth and building either a separate system for them, or else lowering the entire Washington-street system to a depth that would render it inefficient. The sewage from these houses will therefore have to be taken care of for the present by means of approved cess-pools and the use of constant care. Ultimately they can probably be connected with a system of sewerage that will have to be built for the City of Quincy; but the work at that time will be very simple, as the grades of the streets are so pronounced that no especial plans or surveys will be necessary.

DETAILS OF MAIN SEWER.

Location.	Material.	Size.	Length.
Commencing at Hancock street in South Braintree, thence through the low land to and under both lines of railroad; then skirting the pond to Pearl street,	Pipe.	12-in.	1580
Down Pearl street to nearly marsh level .	Pipe.	12-in.	230
From Pearl street north, in a nearly straight line, to Union street	Pipe.	15-in.	2320
From Union street to River street	Pipe.	18-in.	3960
From River street, under the railroad and skirting the pond, to Adams street, just west of the river bridge	Pipe.	20-in.	2200
Thence along Adams street, crossing under the river twice, to the foot of the hill just west of Commercial street; then pass to the southeast along the margin of the river to the railroad; then swing under the railroad to Commercial street; then along Commercial street nearly to the river; thence turning easterly along the river for about 200 feet, making a total of .	Brick.	20x30.	5450

Location.	Material.	Size.	Length.
Thence easterly between the river and rail- road, to and under the latter; thence between the river and Allen street to Quincy avenue	Brick.	24x36.	2660

From this point the sewer will have to skirt the river to such point as may be hereafter determined upon as the location of the pumping station.

RECAPITULATION.

1810 feet	12-in.	pipe sewer.
2320	“ 15-in.	“ “
3960	“ 18-in.	“ “
2200	“ 20-in.	“ “
5450	“ 20x30	brick sewer.
2660	“ 24x36	“ “

18,400 feet main sewer = 3 miles, 2560 feet.
48 man-holes.

LIST AND SIZES OF PROPOSED SEWERS FOR HOUSE AND GROUND WATER DRAINAGE.

STREET.	LENGTH			NUMBER OF			SUB-DRAINS.		
	OF PIPE SEWERS			Man Holes.	Lantern Holes.	Flush Tanks.			
	8 in.	10 in.	12 in.				4 in.	6 in.	8 in.
Adams.	770			0	1	1	670	410	
Allen.	2,500	500		5	2	3	1,910	570	480
Ash.	890					2	890		
Bowditch.	800				1	1	800		
Cedar.	2,300			1	2	2	1,460	840	
Central Avenue.	1,600			1		3	1,600		
Central.	450					1	540		
Cleveland Ave.	2,500			2	2	2	1,700	760	
Commercial.	4,820	450		9	5	3	2,640	920	
Crescent Ave.	580			1	1	1	580		
Elm Avenue.	700	720		1		2	700		720
Elm.	5,230	120		8	5	9	4,830	440	120
Elmwood Ave.	350				1	1	350		
Faxon.	1,200			1			550	480	
Flax Mill.	500	530		3	2	1	500		
Franklin.	3,020			4	2	1	1,120	1,900	
French.	2,350			3	1	1	650	1,690	
Front.	1,600			4	1	1			
Grove.	780			1		1	480		
Hall Ave.	480					1	480		
Hancock.	920	550	170	4	1			920	1,470
Hobart.	1,600	100		2		1	670	770	100
Holbrook.	650					1	650		
Hollis.	1,930			4	2	1	550	1,380	
Jersey Ave.	770			1		1	770		
Liberty.	1,730			1	1	1	1,000	750	
Maple.	590					1	590		
Middle.	4,250			5	5	4	2,620	1,530	
Mill.	540					1	540		
Monatiquot.	1,600			3	2	1	550	1,050	
Mt. Vernon Ave.	1,510				1	2	1,510		
Myrtle.	680			2	1			680	
Oak.	750					2	750		
Pearl.	1,130			1	1	1	600	600	
Pleasant.	1,110			1		1	760	350	
Pond.	1,360			1	1	1	810	550	
Prospect.	900			1		1	900		
Quincy Ave.	1,800			2	1	1	1,250	700	
River.	1,450	200	1,330	4	2	1	800	660	1,500
School.	1,870	90		6	1	3	1,300	550	100
Shaw.	3,180			5	1	1	1,000	2,100	
Spruce.	480					1		480	
Stedman Ave.	420					1	420		
Stetson Ave.	600			1		2	600		
Summer.	690			1		2	690		

SIZES OF PROPOSED SEWERS ETC.,—CONTINUED.

STREET.	LENGTH OF PIPE SEWERS			NUMBER OF			SUB-DRAINS.		
	8 in.	10 in.	12 in.	Man Holes.	Lantern Holes.	Flush Tanks.	4 in.	6 in.	8 in.
Taylor.	1,000			1	1	2	1,000		
Thayer Ave.	240					1	240		
Thayer Place.		610		1					610
Tremont.	2,600			3	2	1	1,150	1,450	
Union, east of River.	5,950	420		11	5	3	2,690	3,780	160
Union, west of River.	2,550			4	3	1		2,600	
Vine.	510							310	
Washington:									
North of Union	6,270	1,140	700	14	8	33	1,780	4,490	1,840
South of Union	3,010	950		7	3	4	2,120	890	950
West.	1,550			2	2	1	400	1,150	
Willow.	550					1	550		
O	320					1	320		
P	250					1	250		
Q	770				1	1	490	280	
R	1,900			2		1	1,050	900	
S	620					1	620		
T	680				1	1	680		
U	380					1	380		
V	740				1	1	740		
W	240						240		
X	2,200			1	1	2	1,000	600	
J	1,220			1				1,220	
K		520						570	
L		3,480		3					
M	260							320	
N	400							310	
Y		620							620
Z	1,350			1				1,350	

RECAPITULATION.

101,490 feet 8-in. pipe sewers.

7,800 " 10-in. " "

2,200 " 12-in. " "

111,490 feet pipe sewers = 21 miles, 610 feet.

140 man-holes.

74 lantern holes.

126 flush tanks.

58,290 feet 4-in. sub-drains.

41,500 " 6-in. " "

8,670 " 8-in. " "

108,460 feet sub-drains = 20 miles 2860 feet.

SUMMARY.

Street Sewers :

101,490 feet of 8-inch pipe sewers.

7,800 feet of 10-inch pipe sewers.

2,200 feet of 12-inch pipe sewers.

111,490 feet of pipe sewers = 21 miles 610 feet.

140 manholes.

126 flush tanks.

74 lantern holes.

Main Sewer :

1,810 feet 12-inch pipe sewer.

2,320 feet 15-inch pipe sewer.

3,960 feet 18-inch pipe sewer.

2,200 feet 20-inch pipe sewer.

5,450 feet 20x30-inch brick sewer.

2,660 feet 24x36-inch brick sewer.

18,400 feet of main sewer = 3 miles 2560 feet.

48 manholes.

Sub-drains :

58,200 feet 4-inch pipe.

41,500 feet 6-inch pipe.

8,670 feet 8-inch pipe.

108,460 feet of sub-drains = 20 miles 2860 feet.

ESTIMATES OF COST.

DESCRIPTION.	MAIN SEWER.		COSTS.	
		Per Foot.	Total.	
1,810 ft. 12-in. pipe sewer . . .		\$ 1 76	\$3,185 60	
2,320 " 15-in. " " . . .		2 20	5,104 00	
3,960 " 18-in. " " . . .		2 69	10,652 40	
2,200 " 20-in. " " . . .		3 42	7,524 00	
5,450 " 20x30-in. brick . . .		3 76	20,492 00	
2,660 " 24x36-in. " . . .		4 35	11,571 00	
48 man-holes, each . . .		60 00	2,880 00	
Ledge . . .			8,500 00	
Total for main sewer . . .			\$69,909 00	
Ten per cent. for engineering and contingencies . . .			6,990 90	
Estimated cost of main sewer . . .			\$76,899 90	
STREET SEWERS — WITHOUT SUB-DRAINS.				
2,200 ft. 12-in. pipe sewer . . .		\$1 49	\$ 3,278 00	
7,800 " 10-in. " " . . .		1 21	10,138 00	
101,490 " 8-in. " " . . .		1 04	105,549 60	
140 man-holes . . .		60 00	8,400 00	
74 lantern holes . . .		17 50	1,295 00	
126 flush tanks . . .		82 00	10,332 00	
Ledge . . .			12,500 00	
Total . . .			\$151,492 60	
Ten per cent. for engineering and contingencies . . .			15,149 26	
Estimated cost of street sewers . . .			\$166,641 86	

SUB-DRAINS — EXTRA COST TO STREET SEWERS FOR.

58,290 ft. 4-in. pipe . . . . .	.30	\$17,487 00
41,500 " 6-in. " . . . . .	.40	16,600 00
8,670 " 8-in. " . . . . .	.48	4,161 60
Ledge		1,250 00
		<hr/>
Total		\$39,498 60
Ten per cent. for engineering and contingencies		3,949 86
		<hr/>
Estimated cost of sub-drains		\$43,448 46

STREET SEWERS — WITH AND WITHOUT SUB-DRAINS.

SIZES.	COSTS PER FOOT (Without Ledge or 10 per cent. additional).			
	Without Sub-Drain.	4-in.	With Sub-Drain. 6-in.	8-in.
12-in. pipe	\$1 49	\$1 79	\$1 89	\$1 97
10-in. "	1 21	1 51	1 61	1 69
8-in. "	1 04	1 34	1 44	1 52

STORM SEWERS.

Catch basins—straight gutter—side inlet	\$90 00	each.
do. do. do. do. top inlet	65 00	" "
do. do. corner gutter—side inlet	98 00	" "
Gutters with curb, Belgian block	2 30	per foot.
do. do. do. cobblestone	1 85	" "
do. without curb, cobblestone	65	" "

SEWERS LAID, AVERAGE DEPTH OF 4½ FEET.

8-in. pipe for connections	63	per foot.
12-in. pipe for sewer	92	" "
15-in. " " "	1 47½	" "
18-in. " " "	1 95	" "
20-in. " " "	2 62½	" "
20x30-in. Brick sewer	3 00	" "
24x36-in. " "	3 60	" "

BENCH ELEVATION :

Elevations above mean low water.

Benches top of brass nut on fire hydrants.

(As hydrants may be changed for repairs or other reasons, two or more should always be used.)

NO. OF HYDRANT.	LOCATION OF HYDRANT.	ELEVATION OF TOP OF NUT.
	Pond street, near the ice houses . . .	129.70
	Washington street, end of Pond street . .	116.45
	Washington street, 500 ft. So. Pond street	129.21
	Washington street, near cor. Thayer Place	116.88
	Washington street opp. Tremont street . .	118.92
	West side of Hancock street, cor. W. street	111.47
	West side of Hancock street, 320 ft. So. of Hall avenue	102.32
	West side of Hancock street, No. of Hall avenue	111.66
	Cor. Washington and Pearl streets . . .	120.30
	Pearl street, E. of R.R. track near Mill Pond	83.26
	Pearl street, W. of R.R. track	108.80
	Washington street, opp. Holbrook avenue .	121.55
	East end of Holbrook avenue	112.23
	Cor. of Summer and Washington streets .	122.76
	Cor. of Summer and Franklin streets . .	119.28
	Cor. Taylor and Washington streets . . .	124.63
	Taylor street, opposite Central street . .	126.20
	Cor. Taylor and Tremont streets	129.29
	Cor. Taylor and Franklin streets	123.33
	Washington street, opp. Town Hall . . .	127.20
	Cor. Washington street and Central avenue	129.08
	Cor. Tremont street and Central avenue . .	131.25
	Cor. Franklin street and Central avenue .	128.33
	Union street, 300 ft. W. of R.R.	112.78
	Washington street, opp. Thayer Academy .	127.59
9	Line between French and Hobart, Wash- ington street	122.81
10	Opp. schoolhouse, Washington street . .	120.71
11	Opp. Private way, Washington street . .	123.36
12	At Mt. Vernon street, Washington street .	122.28

No. OF HYDRANT.	LOCATION OF HYDRANT.	ELEVATION OF TOP OF NUT.
13	At West street, Washington street . . .	119.47
14	Opp. Dr.Dearing's house, Washington street	103.98
15	Cor. Hollis avenue, Washington street .	99.15
16	—————, Washington street .	97.18
17	Opp. River street, Washington street . .	94.51
18	Opp. Elm street, Washington street . .	92.07
	On line Jennings and Hill, Washington street	91.49
	Opp. School street, Washington street .	94.18
	Cor. Common and Washington streets .	95.18
	Opp. John Cavanagh's house, Washing- ton street	95.06
	Oak street hyd., cor. Monatiquot avenue .	160.32
	Mt. Vernon street hyd., bend top of hill .	163.98
	Junc. Maple and Monatiquot avenues .	113.15
	Monatiquot avenue, cor. Ash street . .	123.74
	Hollis avenue opp. Maple	101.40
	Hollis avenue, N. side, W. Ash street .	134.05
	River street, 433 ft. E. Washington street	94.20
	River street, cor. Jersey avenue . . .	87.91
	School street, cor. Steadman avenue . .	98.31
	School street, at bend, E. of R. R. . .	95.56
	School street, opp. Pleasant street . .	99.88
19	Elm street hyd., opp. cemetery . . .	100.65
20	Near Elmwood avenue, Elm street . .	84.69
21	W. side of Elm street	96.10
22	Cor. Cedar and Elm streets	84.83
23	Opp. Middle street, Elm street . . .	78.84
	Near 'T' street, Elm street	102.87
	About 400 ft. W.of Commercial street, on Elm street	96.26
	Washington street, top westerly cor. coping of triangle opp. Cedar street . . .	113.23
	Cedar street, opp. School street . . .	115.08
24	Hyd., between Mill Race and River, Adams street	59.10

NO OF HYDRANT.	LOCATION OF HYDRANT.	ELEVATION OF TOP OF NUT.
25	Opp. T street, Adams street . . .	62.46
26	S. side Adams street . . .	51.75
27	Junc. Commercial and Adams streets .	63.64
	Commercial street, cor. Elm street .	87.62
	Commercial street, 600 ft. S. Elm street .	80.72
28	Commercial street, 300 ft. N. R.R. crossing	62.90
29	Commercial street, S. R.R. crossing .	54.46
30	Commercial street, near Flax Mills street .	44.34
31	Commercial street, between Allen and Flax Mills streets . . .	37.97
32	Commercial street, opp. Allen street .	31.84
33	Commercial street, cor. Union street .	45.98
34	Commercial street, opp. Mill street .	56.50
35	Commercial street, Summit, east of Mill street . . .	78.80
36	Commercial street, bend west of Shaw street	60.27
37	Commercial street, cor. Quincy avenue .	36.60
	Commercial street, east side, near Brook, Weymouth line . . .	21.53
	Elm avenue hydrant opp. O. street .	87.80
	Middle street, north of Railroad bridge .	77.22
	Middle street, cor. River street .	109.48
	Middle street, cor. Cleveland avenue .	114.53
	Middle street, cor. French street .	126.00
	Middle street, 400 feet south of French street . . .	137.72
	Middle street, cor. Union street .	119.88
	Myrtle street, near junction Vine .	92.35
	Spruce street, west side . . .	101.00
	Q street, cor. S street . . .	81.65
	Union street, 1,000 feet west of Middle .	89.00
	Union street, 400 feet east of Cleveland ave.	97.34
	Front street, cor. U street . . .	51.84
	Front street, between Hobart and Bowditch	52.33

No. OF HYDRANT.	LOCATION OF HYDRANT.	ELEVATION OF TOP OF NUT.
87	Allen street, about 200 feet east of Railroad track	50.25
	Allen street, cor. Shaw	30.69
	Quincy avenue, opp. Allen street	31.65
	Bowditch street, 437 feet north of Allen	54.10
	Hobart street, opp. South end of Prospect street	85.17
	Hobart street, opp. north end of Prospect street	118.07
	Liberty street, 400 feet south of Union	75.48
	Cleveland avenue, 460 feet south of Middle street	114.63
	Cleveland avenue, near cor. of R street	106.90
	Shaw street, about 1,150 feet north of Allen street	80.44
	Shaw street, cor. Mill	22.48
	Quincy avenue, 300 feet south of draw-bridge	32.00
	Quincy avenue, opp. P street	70.71
	Quincy avenue, at top of hill	110.00

SPECIFICATIONS.

PIPE.

The pipe shall be vitrified or salt glazed clay pipe, having an internal diameter of the size stated, and no pipe shall be accepted that varies in any diameter more than one quarter of an inch from the standard.

All pipe must be smooth, free from bunches and of uniform thickness.

All pipe for the street sewers will be what is known as deep socket pipe; that for main sewers will be what is known as double strength deep socket pipe, and that for sub-drains will be standard pipe.

Each piece of pipe shall lay at least two feet in length, but three feet lengths would be preferable.

The Y branches for house connections must be of the same quality of pipe as the line of pipe in which they are introduced. The Y branch will be six (6) inches in diameter unless otherwise specified, and will be closed with a plug or stopper as laid.

On all brick sewers slants will be introduced on an average once in thirty (30) feet where the sewer is laid in the street, and these slants will be plugged the same as the Y branches of the pipe sewers.

BRICKS.

The bricks to be used in brick sewers, manholes, etc., must be hard burned, square face bricks, and no soft or light colored bricks of any description will be allowed to be used.

CEMENT.

All cement of the different brands specified in the detailed specifications for different parts of the work must be finely ground, fresh burned cement, subject to the inspection and acceptance of the engineer of the town. The rejection of ten (10) casks of cement

in a carload, for any suitable reason, will warrant the rejection of the entire carload. All cement must be furnished in paper lined barrels and kept stored under cover until taken out on the street for use from day to day.

CASTINGS.

All castings for manhole and lantern hole tops must be smooth, tough castings and conform to the detailed drawings furnished for the same. All covers must be chipped smooth so that they will fit readily and easily in any position into their frames.

LAYING.

In laying pipe sewers without a sub-drain the trench must be at least one foot nine inches wider than the external diameter of the pipe which is to be laid therein. It must be excavated to such a depth that when the pipe is laid upon the hard natural bottom excavated for it it will be at the grade and line called for.

The bottom of the trench must be excavated to a circle conforming to the outside diameter of the pipe for at least one-half the length of the pipe and the pipe carefully laid thereon. The other half of the length of the pipe in the trench will be excavated below the grade of the outside of the pipe sufficient to receive the bell of the pipe and make the joint thereon.

After the pipe has been placed to conform to the line and grades given and the spigot end of one pipe inserted in the adjoining pipe, a hemp gasket, made of twisted or braided hemp and soaked in a grout of neat Portland cement, shall be driven into the annular space between the outside of the spigot and the inside of the bell, so as to make the former central in the latter. The advanced piece of pipe, that is the piece next beyond the joint partially made, shall then be buried for at least two-thirds of its diameter in fine material, packed under and around the pipe with sufficient force to insure the stability of the pipe. The remainder of the joint shall then be made by completely filling the joint with mortar and rounding up around the outside of the spigot a ring of cement mortar nearly as large as the bell on the adjoining pipe. This mortar shall be forced into the joint and wiped around

the spigot of the pipe by hand. The mortar shall be composed of three-fourths pure Portland cement and one-fourth clean, sharp sand tempered with water until it has a consistency to make it hold in place around the under side of the pipe. When the joint has thus been made the remaining space underneath and at the sides of the pipe must be filled with sand or with fine and suitable material, care being taken in packing the under side of the pipe, not to force in or cause the cement mortar to slump. After the under side of the pipe to the extent of one-half its lower diameter has thus been buried the remainder of the pipe may be covered by carefully shoveling fine material around and over the pipe, packing the same tightly, by hand or suitable wooden rammers, until the entire pipe is covered to a depth of two inches over the top, after which and at proper time the remainder of the trench may be filled in the manner hereafter specified.

In making each joint there shall be on the inside of the pipe opposite to that joint an approved form of rubber follower, which shall either prevent the cement mortar being forced into the pipe as the joint is made, or if forced in shall remove the same and leave the joint perfectly smooth on the inside as it is withdrawn; the style of follower to be such as may be acceptable to the engineer of the town.

Wherever branches are to be introduced the Y shall project upwards at an angle of about twenty (20) degrees above the horizontal, and the opening of the Y plugged with a vitrified clay plug or stopper, carefully cemented into the Y.

Where sub-drains are to be laid the trench shall be excavated to a width nine (9) inches greater than where no sub-drains are laid, and at least one foot deeper.

The bottom of the trench where the sub-drain is to be laid shall be excavated the same as if the main sewer pipe was to be laid therein, the pipe laid in it, the spigot end of one being made central in the other by the use of suitable stoneware plugs, and one-half of the joint on the under side of the pipe to be filled with cement mortar the same as specified in making the joints of the main sewer pipe.

After the joint has been made it shall be buried in fine material as specified in the other work, and then the trench shall be filled around and over the sub-drain with screened gravel or other suitable material, as the engineer in charge may specify. This gravel to be rammed with wooden rammers to a uniform, hard surface and on this surface shall be laid the main sewer pipe as hereinbefore specified.

After the main sewer pipe has been laid, either with or without the sub-drain, the trench shall be filled in layers of six (6) inches, each layer to be thoroughly rammed with suitable iron rammers and the top finished off with macadam, or such other material as the top of the street in which the excavation was made was originally composed of, and the top surface left with a suitable crown, as may be specified by the engineer for the different kinds of materials with which the trench may be filled.

In filling the trench no stone over six inches in any diameter shall be put in, nor shall any stone other than coarse gravel stones be put in within six (6) inches of the pipe. Nor shall any stone other than those found in the coarse gravel be placed contiguous to another stone.

After filling the trench, all surplus material should be removed from surface of the street and deposited at such point (not to exceed 800 feet from where it is found) as the engineer in charge may direct.

In rock excavation the rock shall be excavated to make a smooth, straight trench, the same as any other material, except that it need not be wider than to permit the introduction of the pipe, the making of good and thorough joints and the re-filling under and around the pipes of at least six (6) inches of suitable material before the bottom or sides of the trench are reached.

After laying, no main sewer-pipe that does not conform to the line and grade, so that a light can be seen between man-holes or hand-holes, shall be accepted, but will have to be relaid until it does so conform to line and grade.

Whenever water is found in any of the trenches to such an extent that a reasonably dry, hard bottom cannot be obtained,

pumping-shafts or wells must be erected at suitable points, and pumps—either hand or power, as the circumstances may require—be erected at the same, and the water as it accumulates removed.

After sub-drains have been laid, clear water may be allowed to waste through them, but no water shall be drawn or turned directly from the trench into them; but the water must be collected in some form of catch basin, so that all sediment or foreign material will be deposited, and nothing but the clear water flow into the drain.

If at any point the foundation should be found to be soft, spongy, or in any way yielding, it must be removed to a sufficient depth, under the direction of the engineer in charge, and its place supplied with gravel or such other material as the engineer may direct.

Wherever the sides of the trench are in soft material, suitable sheeting, to prevent all caving, must be used. In fact, any and all precautions that are necessary to insure the laying of the pipe upon dry, hard foundations without danger from falling or caving of materials until the pipe is laid, the joint made and covered, must be taken.

Wherever ordered, man-holes and lantern-holes and flush tanks shall be introduced and built according to the detailed specifications hereinafter contained.

BRICK SEWERS.

In laying brick sewers, the excavation at the bottom need be no wider than the outside maximum diameter of the sewer, and the excavation must be made to conform as nearly as possible to the shape of the outside of the bottom of the sewer.

If the bottom is sufficiently hard to support the sewer, no concrete or other foundation will be introduced, but where the bottom is soft, plastic or yielding, then a concrete foundation will have to be introduced, which concrete foundation will be of such general dimensions as circumstances may require, and as the engineer in charge may direct.

All concrete shall be made either with one part fresh-burned Rosendale cement mixed with five parts of coarse gravel, or with

one part fresh-burned Rosendale cement mixed with two parts of clean, sharp sand and four parts of broken stone, the largest dimension of any stone being two inches. The concrete shall be mixed with a sufficient amount of water so that when rammed into place with iron rammers as light moisture shall flush to the top surface.

In all cases where concrete is used it shall be at least six (6) inches wider than the outside dimensions of the sewer on each side; a bottom course of sufficient thickness shall be put in place and then as the sewer is built the bricks shall be backed up with the concrete to the spring line of the top arch of the sewer.

In laying bricks the invert shall be laid with mortar composed of one part of fresh burned Rosendale cement and one part of clean, sharp sand.

All brick in the invert shall be laid to lines drawn between formers giving the exact shape and size of the sewer.

All joints shall be laid full and flush, and one course shall not be laid upon the other until its joints have been thoroughly filled. All inside joints on the invert shall be trowel struck and the whole inside made smooth and true.

The arch of the brick sewers shall be laid upon suitable centers. All joints shall be flushed full, and the outside, when done, shall be plastered.

The mortar used in laying the bricks of the arch and in plastering the same shall be composed of one-third fresh Rosendale burned cement and two-thirds sharp, clean sand. No mortar shall be used that has been mixed over four hours.

Slants shall be introduced into the brick sewers that have been laid in the public streets and highways on an average of once in thirty (30) feet. They shall be laid at such angle as the engineer may designate at about the spring line of the arch. They shall be thoroughly imbedded in the masonry and their ends plugged with vitrified clay plugs cemented in place.

After the arch has been built and plastered the trench shall be filled at the sides and over the top with fine material carefully placed and rammed to at least four (4) inches above the top of

the arch, after which the remainder of the trench may be filled in the same manner as specified for filling the trenches for pipe sewers.

MANHOLES.

Wherever a branch sewer is to connect with another it must be done at a manhole built in conformity with detailed plans as shown.

The ends of the pipes of the sewers must just enter the brick walls of the sides of the manholes at their proper elevations and line. The bottom of the sewer will be made of concrete as specified, and in the top surface of the concrete will be built semi-circular channels to connect the flow from the branch pipes to the main pipes, all as shown.

Wherever manholes are introduced and there are no connecting pipes, they may be oval, as shown in the detailed drawings, Plan No. 2, their use being merely for entrance to the sewer for cleaning and inspecting.

Wherever there is a change in grade or line on which no manhole is built, a lantern hole must be introduced, built in conformity with the details as shown on Plan No. 2.

At the head of each line of main sewer pipe will be introduced a flush tank. This tank will be a circular manhole built as shown in the details of Plan No. 2, having a circular partition wall through it, and passing from one side of this wall to the other a cast iron siphon pipe. The inside of these flush tanks to the top of the partition wall are to be plastered with a mortar composed of one part clean, sharp sand and three parts pure Portland cement. At a point above the partition wall will be introduced a two-inch water pipe with suitable stop cock and wrench, so that it may be turned from the surface of the ground.

In all excavations where the depth from the surface of the street to the center of the pipe is greater than eight (8) feet the manholes and flush tanks shall be built vertical to the height shown on the plan, and the taper shall be made less than shown, in order that the diameter at the top may be the same, regardless of the depth.

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

TOWN OF BRAINTREE, MASS.,

1893.

THE SCHOOL COMMITTEE.

THOMAS A. WATSON, *Chairman.*

EAST BRAINTREE.	{	THOMAS A. WATSON -	Term expires in 1894
		*REV. OLIVER HUCKEL -	" " " 1894
SOUTH BRAINTREE.	{	MRS. A. M. BROOKS -	" " " 1895
		SAM'L C. BRIDGHAM, M. D.	" " " 1894
BRAINTREE.	{	HENRY L. DEARING, M. D.	" " " 1896
		A. C. DRINKWATER -	" " " 1895

IRVING W. HORNE, *Secretary and Superintendent.*

Address, Braintree.

Office, Monatiquot Schoolhouse.

OFFICE HOURS: Monday, 4 to 4.30 P. M.; Tuesday and Thursday, 8.30 to 9 A. M.; Friday, 12 to 12.30 P. M.

STANDING COMMITTEES.

THOMAS A. WATSON, { Reading.
 { Nature Studies.

MRS. A. M. BROOKS, { Writing.
 { Drawing.

MRS. CARRIE F. LORING, { Language.
 { Spelling.

SAMUEL C. BRIDGHAM, M. D. { Mathematics.
 { Hygiene.

HENRY L. DEARING, M. D., { Music.
 { Gymnastics.

A. C. DRINKWATER, { Geography.
 { History.

Truant Officers.

HENRY B. VINTON, Braintree. J. R. CARMICHAEL, South Braintree.
ALPHONZO TAYLOR, East Braintree.

[*Resigned. Mrs. Carrie F. Loring chosen to fill the vacancy.

REPORT OF THE SCHOOL COMMITTEE.

BRAINTREE, Feb. 1, 1894.

At the meeting of the School Committee, Jan. 29, it was voted that the report of the Superintendent, thereat read and discussed, be adopted as the main part of this Committee's report to the town, inasmuch as it fully covers the work of the schools during the past year and the changes and improvements that it is the desire of the Committee to introduce at the earliest practical moment, a separate report from the Committee would of necessity largely cover the same ground.

There has never been a time in the history of the public schools when so many earnest and practical educators were studying the possibilities of improvement in every branch of instruction as they are at present.

Many ideas new within the last ten years have been carefully tested in practical use until they are now far past the experimental stage and have been adopted by the more progressive communities.

Many other ideas are being tested, and while they promise well, we prefer to wait until they have proven their usefulness before recommending their adoption in our schools. The attitude of this Committee has been to ascertain what has been and is being done in the line of progress and to adopt such well proven ideas as are within our means and of which it cannot be said that they are in the slightest degree experimental.

The adoption of the kindergarten system, the employment of special teachers for music and drawing, the abolition of special promotion examinations, the reclassification of the grades in order to facilitate special half yearly promotions and systematic work in physical training, are some of the ideas already adopted and their adoption has given our schools the reputation of being among the most progressive in the state.

Among the improvements that are in progress or that are being considered are the reorganization of the high school so that it will fit for college, the Institute of Technology or the State Normal schools or afford a practical business education, the introduction of manual training, including sewing for the girls, the broadening of the studies in the grammar grades, where unfortunately so large a number of our children have to end their education, by the introduction of the elements of the sciences, geometry and algebra. All these points are treated in detail in the Superintendent's report.

Any progress that our schools may make is rendered possible only by the liberality of our citizens in making the needed appropriations for carrying on the work. In making up the following estimates for the appropriations needed for this year, we have borne in mind the business depression and have not asked for an unnecessary dollar.

The close of Superintendent I. W. Horne's second year's service finds our school system greatly improved by his earnest and energetic work. Ever alive to the responsibilities and requirements of his office he has been untiring in the performance of his duties, and we take pleasure in expressing our entire satisfaction with his work.

He has had throughout his two year's service but one object in view, the welfare of the schools. We ask for him a higher salary. That which he has been receiving is much smaller than his services are worth and less than he can easily command, and we feel that a recognition of his able services by an increase of salary this year is a simple act of justice. We sincerely hope that it will be granted.

Modern heating, ventilating and sanitary arrangements must be furnished for the Pond and Union schoolhouses in order to meet the requirements of the State laws. Estimates that we have procured show that \$4,000 will cover the cost of a first-class system for both buildings. We do not see how anything can be gained by postponing this matter, and we earnestly hope that that amount will be appropriated this year to be raised either by taxation or on town notes.

The problem of placing our out-lying districts on anything like an equality with the more thickly settled districts in the matter of school facilities can only be solved by increased appropriation for transportation of pupils. We recommend the following appropriations for this purpose :—

For conveyance of pupils of the Southwest district to	
Pond school	\$175 00
For conveyance of pupils of the South end of Liberty	
street to South school	250 00
For conveyance of pupils of the centre of Liberty	
street to Pond school	250 00
	<hr/>
Total	\$675 00

For the regular expenses of the School Department for 1894, we recommend the following appropriations :—

Salaries of teachers, including kindergartners (in	
addition to dog tax and school fund)	\$13,500 00
Janitors	1,350 00
Fuel	1,400 00
Incidentals for schoolhouses	700 00
Incidentals for schools	500 00
Text books and supplies	1,100 00
Salary of Superintendent	1,450 00
Rent of Lyceum Hall for the North kindergarten	150 00

Commercial instruction in High school (half year)	\$400 00
Conveyance of pupils to High school . . .	200 00
Conveyance of pupils from West district . . .	350 00
Conveyance of East kindergarten pupils (half year)	100 00

THOMAS A. WATSON,
HENRY L. DEARING,
A. C. DRINKWATER,
S. C. BRIDGHAM,
ANN M. BROOKS,
CARRIE F. LORING,

Members of the School Committee.

REPORT OF SUPERINTENDENT.

To the School Committee of Braintree:—

Ladies and gentlemen: I hereby submit to you my second annual report of the public schools, for the year commencing February 1, 1893, and ending January 1, 1894. It is the ninth of the series of annual reports of the superintendent of schools. In accordance with the desire of your Board, my report, as your secretary and superintendent, will constitute the Annual Report of the School Committee.

The Board has been constituted and organized as follows: At the annual town meeting, on March 6, 1893, Dr. H. L. Dearing and Rev. Oliver Huckel were elected members for three years; Col. A. C. Drinkwater for two years, and Mr. T. A. Watson and Dr. S. C. Bridgham for one year. At the regular meeting of the Committee, on March 20, Mr. T. A. Watson was elected chairman, and Mr. I. W. Horne secretary. The resignation of Rev. Mr. Huckel was presented to the Board on September 11. On October 9, at a joint meeting of the Boards of Selectmen and School Committee, Mr. Charles T. Crane was chosen to succeed Mr. Huckel. Mr. Crane declined to serve, and on October 30 the joint boards elected Mrs. Carrie F. Loring to fill the vacancy.

SUMMARY OF STATISTICS.

Amount appropriated for schools for the year ending

Feb. 1, 1894 \$21,173 13

For teachers :

By taxation . \$12,300 00

Dog tax . . 743 13

School fund . . 350 00

\$13,393 13

Janitors 1,080 00

Incidentals for schools . . 500 00

Incidentals for schoolhouses . 700 00

Text books and supplies . . 1,100 00

Superintendent of Schools . 1,200 00

Conveyance of pupils . . 200 00

Kindergartens . . . 2,000 00

Fuel 1,000 00

\$21,173 13

Amount expended for the support of schools for the

eleven months ending Jan. 1, 1894, . . \$19,005 40

Teachers \$11,802 00

Janitors 968 00

Incidentals for schools . . 532 92

Incidentals for schoolhouses . 798 69

Text books and supplies . . 1,100 03

Superintendent of Schools . 1,100 00

Conveyance of pupils . . 224 47

Kindergartens . . . 1,276 28

Fuel 1,203 01

\$19,005 40

Disbursements for schools in January, 1894 . . 1,575.74

Unexpended balance of appropriation . . . 611.99

Percentage of valuation expended for schools . .00467

Percentage of taxation expended for schools . . .	.24
Percentage of taxation expended for schools in 1892-93 . . . . .	.28
Monthly pay roll of teachers for Dec. 1893 . . .	\$1,405 75
Monthly pay roll of janitors for Dec. 1893 . . .	\$94 00
Number of teachers, regular and special . . .	28
Number of regular teachers	26
Number of female teachers	26
Number of male teachers	2
Average monthly wages of regular female teachers	\$46 33
Average monthly wages of regular male teachers .	\$115 00
Number of pupils enrolled since September, 1893 .	922
Number of children in town between five and fifteen years of age, May 1, 1893	853
Increase upon number returned May 1, 1893 . . .	21
Average membership of schools in 1893 . . .	806
Average membership of schools in 1888 . . .	615

CONCERNING THE STATISTICS.

It will be noticed that the expenditures in the text book and incidental accounts do not agree with the same departments in the accounts of the Selectmen, but that the total is the same.

The deficit in the schoolhouse appropriation was made near the end of the year, on the advice of your Board at that time to do all that was possible as a temporary means of improving the ventilation and sanitation of the old school buildings and out-houses.

The expenditure for the conveyance of pupils is for thirteen months, since the railroad tickets supplied to the pupils in December, 1892, extended to March 1, 1893, while those purchased last December run to the end of March, 1894. It seemed best to do this, since there would be no expense of conveyance during vacation weeks.

From Feb. 1, 1893, to the end of the school year in June, \$300 was paid for coal supplied to the schools during that time.

The price of this coal was \$6.50 and \$7.00 per ton. For the sake of economy, it was deemed advisable last July, when the price of coal reached the lowest point, to purchase the whole year's supply. Thus it will be seen that the expense of fuel for the school year commencing in September, 1893, will be about \$900.

The expense of kindergartens is at least \$300 less than it otherwise would have been, since Mrs. T. A. Watson continued her private kindergarten, opened to the children of the East village during three months, and then furnished the public kindergarten by donating the entire equipment of her private kindergarten.

During the past year and a half, the departments of music and drawing have been equipped at an expense of nearly \$500, and the sum of \$300 has been expended in furnishing the Science laboratories at the High school. These outfits are now fully equal to those in the best school systems.

A most careful inspection of school expenditures is invited. A rigid economy has been exercised at all times and in all departments, while the best interests of the schools have been kept in view. Whenever new books have been bought, not only the most available bargain possible has been made, but in many instances an exchange of old and condemned books has been effected. By this means, from books which were of absolutely no value to the schools, about \$150 have been realized during the past year.

CHANGE OF TEACHERS.

APPOINTED.

In May—Miss E. Frances Hayward, West Street.

In April—Miss Hattie M. Hill, kindergarten, South Braintree.

“ Miss Charlotte M. Hobart, kindergarten, Braintree.

In Sept.—Mr. Oliver R. Cook, principal, High.

“ Miss Hattie F. Weeks, East.

“ Miss Julia Ellsworth, 6th grade, Monatiquot.

In Sept.—Miss Anna K. McKellar, 1st grade, Union.

“ Miss Robertina B. Trask, kindergarten, East Braintree.

TRANSFERRED.

In May—Miss Mary E. Vining, from West Street to grades 1 and 2, Iron Works.

In Sept.—Miss Mabel L. Bates, from 1st to 3rd grade, Union.

“ Miss Josephine B. Colbert, from 5th to 6th grade, Monatiquot.

In Oct.—Miss Hattie F. Weeks, from the East to the 7th grade, Monatiquot.

“ Miss E. Frances Hayward, from the West Street to the East.

WORK OF THE SCHOOLS.

During the past year all have worked together harmoniously for the welfare and improvement of the schools, and a kindly feeling and a unity of purpose have been manifested among parents, teachers and pupils. In all departments of instruction there has been a most commendable effort to give to the pupils a more perfect physical development, greater activity and originality in thinking, and a more effective ethical and moral training. The work in all the schools has proceeded quietly and successfully. No radical changes have been made, but the work has been constantly broadening, and substantial improvements have been made in various directions. The only interruption in work was at the Pond school and South kindergarten, which were closed during two weeks because of the prevalence of diphtheria.

PROMOTION OF PUPILS.

The new method of determining the position of pupils in the grades, from the judgment of the teacher as to their ability to perform the required work, needs to be supported by no argument.

Its use has won universal approval. It induces the pupils to feel that the work of each day is an important factor in determining their progress. The aim of the teachers is not to prepare their pupils to answer a definite list of questions, but rather to develop in them such physical vigor, mental power and habits of activity as will enable them to accomplish successfully the work in higher grades. This alone is education. The tests and experiences of both teachers and pupils become, so far as possible, the tests and experiences of real life. A common, and, frequently too true, criticism of the public schools is that their graduates fail when they at first encounter the real problems of life. The best methods of instruction and discipline must at all times have a sensitive regard for the children's future.

LANGUAGE.

In the primary classes an increased prominence has been given to language instruction, including reading, writing and composition, oral and written. The reason for this is obvious. These branches are the necessary instruments of acquisition in the higher grades. The pupils are continually dealing with language. They express their thoughts in oral and written language, and it is the language of the text books, the teacher and their classmates, which they are constantly required to understand. I believe that pupils in advanced classes experience more difficulty because of a deficiency in early language training than from all other causes combined.

Constant practice in the correct use of language, has taken the place of memorizing the uncomprehended rules and definitions of grammar in the lower grades. With the teachers there is an increasing appreciation of the value of the habit of using good English in all branches of study. Nothing else can improve the schools so much at the present time as the unanimous effort of the teachers to secure definite thinking and a correct expression of thought in all exercises.



School House at East Brantree

Lundy & Phipps Architects
Boston Mass

NUMBERS.

In elementary number work less time than formerly has been given to non-essentials and entertaining devices, and greater emphasis has been placed upon a drill in the fundamental processes and combinations.

MUSIC AND DRAWING.

Music and drawing have been supervised and taught excellently. These departments are of immense value in broadening and enriching the course of instruction.

It would be difficult to overestimate the importance of drawing. Manual training and manual occupations must be based upon it. Without it natural history, geography and geometry cannot be taught in the best way. Students who enter the state Normal school must be graduates of a high school. Since they are required to pass an examination in drawing they should be taught this study in the high school.

PENMANSHIP.

There has been a marked improvement in penmanship in all the grades during the past year. One year ago Prof. Clark gave addresses before our teachers and visited the schools to develop systematic teaching of writing. There has been a successful and systematic effort on the part of the teachers not only to obtain good copybooks, but also to produce neat looking and well written papers in all school exercises.

ADMINISTRATION.

The methods of discipline have been such as to foster a spirit of co-operation and to develop in the students the power of self-

control. Many pupils can be governed by a teacher: few can govern themselves. Discipline is of very little value unless it secures this result. It is the habit and tendency of the life, and not a knowledge of facts, that is the most valuable thing to be obtained by education.

THE KINDERGARTENS.

On March 13, the town made an appropriation to equip and support three public kindergartens. During the second week in April two of these schools were started, one in the former High school apartments at the town house, and the other at North Braintree, in Lyceum Hall. As it was difficult to arrange for a room in a suitable location in the East section, Mrs. T. A. Watson opened her private kindergarten to the public until the end of the school year, and in September the East Braintree kindergarten was opened in the upper room of the East schoolhouse. There was no expense of equipping this school, as Mrs. Watson donated to the School Committee the entire outfit of her private kindergarten, thus saving an expenditure of at least \$125. Since it was necessary to locate this school at one end of the East village and Mrs. Watson had saved the town an expense of \$150 by supporting it during three months, it was thought just and proper to provide transportation for those children who were living at the other end of the village. Mr. W. B. Hollis was engaged to do this work.

I cannot adequately express my appreciation of the value of these schools. From the beginning they have been well patronized. Over ninety pupils were immediately enrolled and the average attendance has been unusually high. If the aim of education is to make of human beings men and women who can talk, act, think, observe and feel rightly, and express themselves clearly in various ways, certainly no other grade of school has done so much to educate its pupils.

Some of the many excellent results of kindergarten training are: highly quickened powers of observation, clear ideas, power of expression in conversation, a considerable knowledge of numbers and of forms and colors, a developed activity to acquire easily drawing, reading, writing and pencil work; a sense of justice, habits of kindness and generosity, politeness, truthfulness, and neatness. All this is not only a preparation for the traditional school work, but is a most substantial advancement in that work. The primary school must be adjusted to the kindergarten at once, so that it will not repeat, but continue the work. But the greatest gain is not in the *amount*, but in the *habit* and *method* of acquisition upon which will depend an increased progress throughout the entire course. As soon as the full results of the kindergarten reach a grade in the school course, we shall be permitted to extend the work of that grade materially. Two years ago it was thought best to lengthen the course below the High school to nine years. The kindergarten has obviated the necessity for further increase, and one of its great points of value lies in the fact that this extra year is placed at the beginning of school life, where time previously wasted is utilized. Between the grammar and secondary schools it would have been more expensive and would not have served so useful a purpose.

In nearly all public school systems at the present time there is a serious evil connected with the lowest primary grade. From 30 to 50 per cent. of the pupils who enter it remain two years. This indicates one of two things — either that the requirements are too great, or that the children are not sufficiently developed. From this unnatural condition, by discouragements and the acquisition of harmful habits, are produced the vast majority of those who pass for dullards in the advanced grades. This is a wrong which should not be tolerated for an instant. Immediate provision should be made for transferring to the kindergarten those who are not sufficiently developed in physical vigor and mental activity to perform the work in the lowest primary grade. Here the kindergarten will supply a pressing need.

It should be known that the kindergarten is rapidly becoming a

permanent part of public school systems, about 30 cities and towns in this state having adopted them last year; that the work is so important that kindergarten instruction is to be made a department in the State Normal schools, and that a special agent is to be appointed by the State Board of Education to aid and advise in regard to the introduction of kindergartens.

CHANGES IN PROGRESS, OR ADVISABLE.

GEOGRAPHY.

This branch of study as now taught is essentially a work of memorizing the text-books. The teachers are in no way responsible for this condition, as they have followed faithfully the course which was given them. I have spent much time since September preparing a new course of study in geography. This will provide for the development of its fundamental ideas by the pupils' observation of the real processes and things around them, such as occupations, productions, soils, slopes, hills, valleys, etc. The pupils will be brought to understand various kinds of maps by making them, beginning with the diagram of the school room and proceeding outward. In the primary grades the work will be associated with drawing and nature study. In the advanced course, the study will be less a memorizing process and more the acquisition of systematic knowledge. The study of political and industrial history will be combined with mathematical and physical geography. Such a study will not only exercise the memory, but stimulate the pupils to independent thought and investigation.

READING.

At the present time, the aim in this department is mainly to give instruction in oral expression. This work in the lowest classes has been much improved during the past year. In September, Supt. E. H. Davis, Chelsea, Mass., author of the thought method of reading, delivered before the teachers a most

inspiring lecture on this subject, which was illustrated by one of his most skillful teachers, Miss Nellie E. Boyd, with a class of pupils from one of our schools. Those teachers who have been able to grasp this method, are not only teaching reading much more rapidly, but succeed in preserving those graces of expression which are natural in childhood. Silent reading should be taught as thoroughly and systematically, especially in the higher grades. This work should not only include the reading of all text books, but occupy a definite amount of school time and consist of giving information in the regular lines of work, such as geography, nature study and history. Throughout the whole course the students should constantly memorize selections of prose and poetry containing the noblest ethical and moral sentiments and ideals. These and the life of the teachers are the most effective forces in moulding the characters of the pupils. "I hold in memory," says President Eliot, "bits of poetry learned in childhood, which have stood by me through life in the struggle to keep true to just ideals of love and duty." The oral reading and reciting in grammar schools should be from the masterpieces of literature. Lists of books suitable for the work and pupils of each grade should be arranged. These books should be made available to the pupils and their reading of them should be diligently encouraged and guided by the teachers. Such a course in reading will give to the graduates of our schools a taste for, and love of, good books and a knowledge of literature which will be of inestimable value. Such a course will bring the pupils into closest contact with great minds, and to do this, as one has said, is to be educated.

COMMON AND HIGHER STUDIES.

With the development of the High school in the educational system of New England came a separation of the studies into what are known as common and higher branches. It was considered necessary that the common branches should be completed

in the elementary schools, and that the pupils should not be allowed to pursue the higher branches before reaching the High school. There is certainly nothing in the nature of these studies to warrant this arrangement. The elements of the higher branches are not more difficult than most of the common studies. Besides they have many things in common, and their natural union in instruction would be in the interest of economy and usefulness. In the vain attempt to complete the common branches in the elementary schools, much that is most practical has been omitted. For example, arithmetic has been so changed that pupils who have completed it cannot even measure a pile of wood; and yet teachers are constantly endeavoring to teach in this branch some of the profoundest theories in mathematics.

The exclusion of these studies from the High school, as beneath its dignity, has done much to attach to it the term "unpractical." During the past few years there has been a wide-spread movement, first voiced by President Eliot, to establish the natural correlation of all branches of study in the elementary schools, and to continue this union in the High school. Many cities and towns in this part of the state are making this change successfully, and have gone so far and find it so advantageous that all are now assured of its permanency.

In accordance with the instructions of your Board on January 8th, I am now prepared to recommend that, as soon as possible, the elements of algebra be taught in the seventh and eighth grades, and so correlated and associated with arithmetic that both studies may be taught as one; also, that both these branches be continued in the High school. I would recommend that a large amount of what may be called constructive geometry and the simplest elements of demonstrational geometry be associated and taught with drawing in the higher grammar grades. These changes will not require additional expenditure and they will afford to the pupils greater opportunities and broader training.

This change should be made gradually and only in such a way that there will be no loss of opportunity for drill, a vital element of teaching in elementary schools. The teachers may be assured

that no work will be given them for which they shall not have made full preparation; and I am persuaded that they will hail these changes with delight, since they will add interest and scholarly richness to their activities.

MANUAL TRAINING.

I wish to call attention to the growing faith in the public mind in the importance of manual training as a necessary element in education. The traditional school has done much to educate the head, very little to develop the heart and nothing to train the hand. The most perfect man possesses this three-fold development, and that alone which gives this, can be called real education. The aim of manual training is not to make wooden models, but to aid in making men and women. The rapid development of this department of instruction is not a *fad* of educators, but the result of a settled conviction on the part of many thoughtful men and women that the practices of education should conform to its theories, if the most desirable results would be obtained. I would earnestly recommend a consideration of the introduction of instruction in manual training into the schools as soon as a way of doing this is discovered which will not materially increase the expense.

The system of manual instruction in the public schools of Northampton, Mass., possesses many advantages. The pupils are taught this branch of study in the regular class-rooms and by the regular teachers, under the supervision of the director of drawing. With this system, the expense of equipping all our grammar schools and furnishing a year's supply of material, would be less than \$100; and it is said that teachers can be prepared to give the instruction from twelve lessons.

I will call attention to the fact that Mrs. T. A. Watson has had a private manual school in operation in the East section of the town for the last three years, to which, since the beginning of the year, nearly thirty pupils have been admitted from the Iron Works grammar school. Not only are

these children granted this unusual privilege, but the citizens of Braintree are afforded an excellent opportunity to observe for themselves the methods and results of manual training instruction.

THE HIGH SCHOOL.

There has been a most earnest and worthy effort on the part of your Board to improve this school. It has registered eighteen more pupils than last year. Mr. O. R. Cook, the new principal, has come to the work with unusual energy and enthusiasm and a most excellent preparation. His work meets my unqualified approval. The people of the town are earnestly invited to visit the school and see for themselves the excellent work that is being done.

College requirements for admission have been so changed recently that the best preparation in the High school for practical affairs becomes the best preparation for the higher educational institutions. Greek and Latin are no longer required and due prominence is being given to literature, history, the English language, mathematics, science and modern languages. The requirements for entering the State Normal schools have been largely increased. Only "graduates of a high school whose courses of study have been approved by the State Board of Education, or those of equal attainments, will be admitted," and then only at the beginning of the school year in September. It will be necessary to re-arrange and improve the course in the High school so that it will meet these added requirements.

In accordance with a recent provision of your Board, that each student shall be given a certificate for each branch of study successfully pursued for a half year, and that twenty-four of these certificates shall be required for a diploma in the general course, such a selection and arrangement of studies can be made as will prepare the pupils for college and the Normal schools and at the same time give the best general qualifications for practical life. An important provision of this regulation is that pupils may choose their time, whether three, four or five years in which to

earn a diploma. At no previous time have High schools had such an opportunity to concentrate effort on one course of study which will lead to so many results. The changes in the High school course now under consideration have these ends in view, *i. e.*, fitting for college, Normal school or practical life.

Many of the pupils who enter this school are looking forward to a business life. If its course of study does not add to their equipment, they go elsewhere. Of fifteen boys who entered the school with the last graduating class, only one remained to complete the course. At the present time ten pupils, who have left the schools, are attending business colleges in Boston at an aggregate annual expense of about \$2,000. These are some of the reasons that would seem to show that the expense of a business department in this school would be the wisest economy. In accordance with your instructions, we are looking for a suitable teacher and arranging a course of business study to be set in operation next September, provided the town make suitable financial provision for it.

I have asked the Principal to state the present condition and future needs of the school, and attention is invited to his communication.

To the Superintendent of Schools, Braintree:

In whatever is said or done in connection with our schools, one aim must be kept always in view, namely, their improvement. Whatever of criticism or suggestion may be brought forward should be only for advancement. There must be no fault-finding simply for the purpose of finding fault; no suggestion for the sake of bringing forward something new. Criticisms must be kindly, suggestions practicable. Trying to keep these two points in view, at your request, I beg leave to submit the following:

The criticism upon the High school, which it seems to me can most fairly be made, is lack of aim in its course of study. The course seems to have really no well defined end in view. It fits a pupil neither for college, for the Normal school nor for business life. There is little in it that can be called practical. I use

the word in the narrow sense of those studies which look directly toward earning a living. This lack of aim in the course of study naturally tends to produce the same lack in the pupils.

It seems to me that a high school course should leave a scholar where he can, without further preparation, take up something new. If he wishes to go to college or Normal school he should be fitted so to do. If he wishes to go into business he should at least have a start in that direction, so that he can take up the business with the same degree of confidence with which he enters upon a new course of study.

In any high school course the studies of most importance are those which tend to develop power in the pupil. Of next importance are those which give direct assistance in life work.

Bearing in mind these three points, namely, that a course of study should have a definite aim, that it should contain those branches which develop power, and that there should also be in it some studies pertaining directly to business life, I wish to make the following suggestions :

First, that the course be, in accordance with the vote of the School Board just passed, increased to four years, the custom in most schools ; second, that some purely disciplinary studies should be added to those already in the course ; third, that together with these be added some purely practical branches. Among these last I would suggest double entry bookkeeping, commercial law, commercial geography, civil government, and perhaps shorthand and typewriting, although upon the admission of these two last there will surely be some difference of opinion. I would also suggest a more extended course in history and in the English language.

With these additional studies there would be need of an additional teacher, who has had special instruction in these branches. These additions would, it seems to me, give new life to the high school course and arouse new enthusiasm among the scholars. Without enthusiasm, both on the part of the scholars and the teachers, there is little hope of rapid progress.

Respectfully submitted,

OLIVER R. COOK.

The members of the graduating class of 1893 were :

Alice Frances Connell,
Susan Genevra Doane,

Clara Baylies Connell,
Carolyn Adelaide Foster,

Helen Eliza Hewes,
 Ruby Crol Neil,
 Emily Streiferd,

Annie Rosamond Hill,
 Isabel Louise Penniman,
 Minerva Pervere Witherell,

Harry Phillips Sturtevant.

The order of exercises at the Town Hall, June 22, was as follows :

Motto: Row, Not Drift.

Singing	.	.	.	.	{ a. Hark! Hark! the Lark. b. Light.
				School.	
Declamation	.	.		Election of President by Popular Vote Harry P. Sturtevant.	
Recital	.	.	.	.	The White City Carolyn A. Foster.
Singing	.	.	.	.	Hail! Smiling Morn School.
Translation	.	.	.	.	Virgil Alice F. Connell.
Recital	.	.	.	.	The Firemen Ruby C. Neil.
Singing	.	.	.	.	The Huntsman's Chorus School.
Essay	.	.	.	.	Flowers by the Wayside Minnie P. Witherell.
Translation	.		The Carronade Loose at Sea	.	V. Hugo Susan G. Doane.
Singing	.		Solo — Children's Dreams	.	Cowen Edna Marie Goulland.
Recital	.	.	.	.	Emily Geiger's Ride Annie R. Hill.
Essay	.	.	.	.	The Study of Music Emily Streiferd.
Essay	.	.	.	.	Row, not Drift Clara B. Connell.

Singing Gloria
School.

Essay Edison's Latest Invention
I. Louise Penniman.

PRESENTATION OF DIPLOMAS.

Rev. Oliver Huckel.

PROMOTIONS AND CLASSIFICATION OF PUPILS.

One year ago provision was made for the immediate promotion of pupils who manifest sufficient ability to do the work in a higher grade. Since the beginning of the school year in September, fourteen pupils have received special promotions, and in every case excellent standing has been maintained in the advanced grade. The one inference which must be drawn is that it would have been a great mistake to compel these pupils to "mark time" for a whole year, at least, in their school course. Many advantages attend these promotions. The passing of a pupil to a higher class from real merit, exerts a healthful stimulating influence to faithful endeavor in all students. The teachers are induced to do more individual and less class teaching. It is seen that the military lock-step movement of classes is not only harmful but unnecessary and unnatural. Supt. Seaver has said that the demon of the modern graded school is "uniformity." Special promotions will become a powerful factor in destroying this undesirable uniformity.

But there is one difficulty in arranging these promotions. The distance between two classes is so great that these pupils pass over many essential things. This disadvantage may be avoided by establishing such a system of classification as is in use in Lowell and Brookline. Each class is divided into two or three sections, one in advance of the other and yet not advancing more rapidly. In November your Board authorized such a classification of the

pupils as would promote the highest individual success, so far as might be consistent with the best methods of class instruction. This arrangement cannot be made at once arbitrarily, but must be allowed to develop gradually under careful guidance. This classification will help to bring back two of the most excellent elements of the instruction of ungraded schools. A part of the pupils will be permitted to think and study by themselves, while others are reciting, and the pupils will have an opportunity to witness the work of those in another class.

SANITATION AND SCHOOL HYGIENE.

During the past year the healthfulness of the schools has been carefully watched. The gymnastics, introduced one year ago, have been attended with very satisfactory results. It is a matter of common remark among our teachers that the stooping forms and narrow chests are far less common among the pupils than formerly. The instruction of your Board that, as a matter of precaution against the spread of infectious disease, books, pencils and other appliances be distributed in such a way as not to be interchanged among the pupils, have been carried out. This arrangement not only favors neatness and avoids contagion, but promotes a greater care of text books.

Last fall, a member of your Board, while inspecting the sanitary condition of the Pond school, discovered that the waste water was discharged into the vaults, making a fruitful source of disease. In accordance with your instructions, there has been the most careful disinfection and sanitation of the outbuildings at the various schools.

About the last of November a serious outbreak of diphtheria occurred in the Pond school, which was immediately closed. The directions of the physicians on your Board concerning the disinfecting of the school, were carefully complied with. The rooms were thoroughly fumigated by the burning of large quantities of sulphur. The infected books and materials were burned,

and the desks of the sick pupils and the floor in their vicinity were saturated with the most powerful disinfecting liquids.

The efforts of the teachers to avoid the spread of the contagious diseases deserves the highest commendation. It would be advantageous to have warning cards, with name of disease plainly printed on them, displayed at the houses in which there is contagion. The law seems to be quite inefficient in not requiring an earlier report. In some cases the diseases are not reported and isolated before many children have been exposed. I am, of course, aware of the difficulty of diagnosing certain diseases in their earlier stages, but it can not be too deeply impressed on the minds of both parents and physicians that the public should have the benefit of any doubt, and in any case where there is a possibility of infectious disease the child should be isolated until it is determined whether or not the disease is infectious.

Instruction in physiology and hygiene in the grammar schools has been very successful. In this work the teachers have used a most excellent manuscript written by Dr. F. W. Brett of Monati-quot school. This has enabled them to make the subject clear, interesting and practical, and at the same time thoroughly scientific. Dr. Brett was peculiarly well qualified for this work, both from the side of professional attainment and that of extended experience in the schoolroom.

PREPARATION OF TEACHERS.

It may be of advantage to many to know what is considered, at the present time, a desirable preparation for teaching. A course of study in the High school or an academy should first be completed, with special attention given to the English branches and the sciences. This should be followed by a course of at least two years at a State Normal school. It would be an excellent thing if this could be supplemented by a half year of training with a skillful teacher. Perhaps a proper substitute for the Normal

school course would be two or three years, at least, of successful experience, or the same time spent in a college. Besides all this, a person who purposes to become a teacher should possess a broad culture, energy, tact, high moral character, generous sympathy and a natural love of children. The present salaries paid teachers in Braintree will command the services of those possessing these qualifications; they should secure nothing less. All possessing the qualifications will find it easy to obtain desirable positions. It must be remembered that many of the present teachers have gained their successful experience in the schools, and that when they were engaged the salaries were not equal to what they are now.

CONVEYANCE OF PUPILS.

During the last three years there has been appropriated annually \$200, to be used at the discretion of the School Committee in providing conveyance for scholars. It has been expended almost exclusively in purchasing railroad tickets for those who live at East Braintree and Mayflower Park. During the past year parents in different parts of the town have made urgent requests that transportation be furnished their children. Some of these were occasioned by the action of your Board concerning the West street pupils.

At the beginning of the school year, of the twenty-six scholars in the West district, fourteen were attending the Monati-quot school, one the Pond, and eleven the West school. Many of the parents, knowing the superior advantages at the Monati-quot school from the experience of their children, presented a petition requesting transportation. The matter was at once considered by your Committee. It was learned that all the children of the district could be conveyed to the Pond and Monatiquot schools at an expense of \$100 at least less than the annual cost of running the West school even for the eleven pupils. The parents

of all the scholars in the district were consulted and, with only one exception, consented to have the school closed, if proper transportation could be furnished. Mr. A. A. Drollett, a resident of the district, and the unanimous choice of those interested, was engaged at \$350 per year to carry the scholars. This he has done in a most satisfactory manner. By this arrangement the town has saved considerable expense, transportation is furnished for those who wished to attend the Monatiquot school, and all the children of the district have the advantage of graded schools. In one respect they have an advantage of those who live at a short distance from the schools and are not transported. Stormy weather does not disturb them. This matter was considered by the Committee as one of economy and efficiency, and not of transportation. The action in closing this school should not be likened to that of closing the South-east and South-west schools a few years ago. At that time there were in each of those districts not more than ten scholars, while in the West district there were twenty-six.

I would recommend that the town be asked to consider the following appropriations for conveyance of scholars ;

\$175 to convey from six to nine scholars from the South-west district to the Pond school. \$250 to convey from six to ten scholars from the south end of Liberty street to the South school. 250 to convey from six to eight scholars from the centre of Liberty street to the Pond school.

SANITATION OF POND AND UNION SCHOOLHOUSES.

This question seems to be one of urgent need. Both buildings were condemned long ago by the State Board of Health. The rooms can be ventilated only by the dangerous method of opening windows. The teachers are constantly struggling to avoid this danger, and, at the same time, to renew the vitiated atmosphere of their rooms. The pupils contract many colds in passing to and

from the out-buildings. Consumption is the most destructive disease in New England. I firmly believe that the frequent colds in childhood and the vitiated atmosphere of the traditional un-ventilated schoolhouse are the common source of this disease. Pure air is the best disinfectant and the necessary purifier of the blood. Undoubtedly in the recent contagions, the germs of disease found a fruitful lodging-place only in those children whose blood had not been purified by a proper supply of pure air. Certainly it is economy to provide for the more perfect sanitation of these schoolhouses.

THE MONATQUOT BUILDING.

I cannot close this report without calling attention to the benefits which the pupils derive from this building. It is the unanimous testimony of the teachers that their rooms are warmed and ventilated perfectly. Many parents have noted the increased healthfulness of their children. The janitor deserves much credit for the skillful and satisfactory way in which he has managed its complicated warming and ventilating apparatus.

During the present year the consumption of coal has been many tons less than last year during the same months. Without considering the health of pupils, I believe that the increase in mental activity and development is alone far greater than the added expense of this building.

CONCLUDING REMARKS.

In conclusion, I wish to say that the citizens of Braintree have reason to take a just pride in their schools. They are earnestly invited to visit them and inspect the work. Helpful and sympathetic criticism will do much to improve them. During the past year I have often wished that the people would be more free to make suggestions. A community will always have as good schools as it wishes and as poor as it will allow. The education of our

children, preparing them to meet successfully life's mighty struggles, is a matter of the highest common interest. We have had only one aim—the greatest economy in human growth.

In the administration of the schools, our position as a suburb of Boston has been kept constantly in view. Braintree, from its location and many natural and acquired advantages, seems to be destined to become a residential town, but in order to attract to it those who would be most desirable, its system of public schools must be equal to those in other suburban towns. Undoubtedly, with many people, this becomes the first and important factor in determining location.

In proportion to the salaries paid, the quality of the teachers is exceptionally good. I wish that all our people could understand more fully the strong desire of the teachers to teach the best possible school, and their real pleasure in receiving visits and helpful suggestions from parents. They are earnest and faithful, and in many ways show that they are serving the best interests of the town. During the past year they have attended many general and grade meetings, and have manifested an earnest endeavor to know more of the great art of teaching.

The active and progressive policy of your Committee is to be highly commended. I wish to bear testimony to our citizens of your unselfish fidelity to the important trust which they have confided to you. I have, at no other time, been associated with a body of individuals who have been so careful and conscientious at all times and in all possible ways, to serve the highest public welfare. Your office is one of the greatest responsibility, and demands much valuable time. Yet it must be remembered that you receive no remuneration. Much care should be taken not to drive from public office those who are best qualified to assume its responsibilities.

The importance of the school system in the progress and development of the town cannot be overestimated. The town has done much for its schools. When the new building at East Braintree shall have been erected and the Pond and Union buildings provided with new heating and ventilating systems, our schoolhouse ac-

commodations will not be excelled. In no other place is there greater care and provision for the comfort and health of the children. The results of instruction will compare favorably with those in the best schools. The course of study affords excellent advantages. The most perfect harmony prevails in all school agencies. We should not be satisfied to stop here. Building carefully upon the past will make far greater results possible. Nothing should deter your Board in the choice of the best teachers; nothing should prevent the teachers from teaching the best possible schools. Every dollar expended must yield its proper return, not in material or matter, but in a greater supremacy of mind over matter. Some one has well said that the only truly great thing in this world is man, and the only thing great in man is mind.

My work has been very pleasant. I have seen so much that can be done to improve the school, that I regret that time and opportunity have not permitted me to do more than I have. All have seemed most willing to give assistance in any way. My cordial thanks are due the people for receiving me so kindly, the teachers for their fidelity and obedience, and the members of your Board who have, by your hearty support and generous assistance, made my work much easier and more effective than it would otherwise have been. As a result of these conditions, I assure you that there are few school systems in better condition to appropriate and apply the best things in modern education.

Very respectfully,

IRVING W. HORNE,

Superintendent of Schools.

Braintree, Jan. 29, 1894.

REPORT OF ATTENDANCE

DURING THE FIRST FOUR MONTHS OF THIS YEAR.

TEACHERS,	Number Enrolled,	Average Membership.	Average Attendance.	Number of Visitors.
HIGH.				
Oliver R. Cook . . .	89	84	80.5	3
Carrie M. Bassett . . .				
Sarah W. Lane . . .				
MONATIQUOT.				
Frank W. Brett . . .	35	32.7	30.4	17
Hattie F. Weeks . . .	44	37.7	33.5	6
Josephine B. Colbert . . .	45	43.8	39.7	23
Julia Ellsworth . . .	39	34	31.7	6
Susan A. O'Rourke . . .	60	53.1	50	26
IRON WORKS.				
Victoria P. Wilde . . .	31	29	27.1	31
Mary L. Crowe . . .	40	38.2	35	22
Nellie E. Bowles . . .	38	36.6	34.7	22
Mary E. Vining . . .	52	45.6	37	14
POND.				
Sarah L. Arnold . . .	25	23.1	21.3	15
Alice C. Jenkins . . .	31	23.1	21.8	15
Annie M. Brooks . . .	27	18.4	17.4	14
Emily A. Lapham . . .	47	31.2	28.2	7
UNION.				
Avis A. Thayer . . .	28	24.4	23.5	88
Mabel L. Bates . . .	27	25.4	24.3	43
Hannah C. Whelan . . .	37	33.2	30.7	55
Anna K. McKellar . . .	42	37.1	34.2	28

REPORT OF ATTENDANCE

DURING THE FIRST FOUR MONTHS OF THIS YEAR.

TEACHERS,	Number Enrolled.	Average Membership.	Average Attendance.	Number of Visitors.
EAST.				
E. Frances Hayward . .	31	29.8	28.1	23
MIDDLE STREET.				
Estelle Robinson . .	37	29.2	27.8	16
SOUTH.				
Margaret E. C. Bannon .	35	29.7	25.1	19
KINDERGARTENS.—EAST BRAINTREE.				
Robertina B. Trask . .	29	22.2	17.9	61
NORTH BRAINTREE.				
Charlotte M. Hobart . .	28	24.6	21	45
SOUTH BRAINTREE.				
Harriet M. Hill . . .	25	20.1	14.4	57
Totals . . .	92.2	806.2	736.3	656

REPORT OF
THE TOWN CLERK
OF THE
TOWN OF BRAINTREE, MASS.,

1893.

REPORT OF TOWN CLERK.

BRAINTREE, Jan. 1, 1894.

In accordance with the usual custom, the Town Clerk submits the following report:

MARRIAGES IN BRAINTREE IN 1893.

DATE.	NAME.	AGE.	RESIDENCE.
Jan. 10,	Michael Andrew Hagerty,	26	Weymouth
	Mary Ellen Doherty,	26	Braintree
Jan. 11,	Arthur William O'Connor,	24	Braintree
	Mary Delory,	20	Braintree
Jan. 17,	George Winthrop Ratcliffe,	20	Braintree
	Ethel Alice Thayer,	19	Randolph
Jan. 18,	George Edward Orcutt,	22	Braintree
	Annie Schmidt,	23	Hingham
Jan. 25,	Frank Alfred Reed,	24	Braintree
	Eliza Mary Sanborn,	21	Braintree
Jan. 25,	Clifton Daniel Harlow,	31	Weymouth
	Hattie May Wilkins,	21	Braintree
Jan. 26,	William Jerome Tirrell, Jr.,	20	Braintree
	Cora Nellie Fenderson,	20	Braintree
Feb. 7,	Robert Decose,	25	Braintree
	Alice Sampson,	19	Nova Scotia
Feb. 10,	Patrick Joseph O'Rourke,	25	Braintree
	Catherine Scally,	22	Weymouth
Feb. 20,	Charles H. Pierce,	24	Boston
	Emma A. Wilson,	20	Boston
Feb. 25,	E. Vernon Crooker,	28	Holbrook
	Rose Ella (Touche) Branley,	29	Holbrook
Mar. 11,	Max Kreutler,	32	Braintree
	Sarah Schwartz,	32	Braintree
Mar. 22,	Howard Lincoln Edson,	22	Braintree
	Edith Evelyn Rogers,	17	Milford
Apr. 5,	Michael Cornelius Reardon,	31	Abington
	Rosanna Elizabeth Coleraine,	26	Braintree
Apr. 5,	Benjamin Hoffman Davidson,	36	Albany, N. Y.
	Ida Ewing Sheppard,	25	Braintree
Apr. 20,	Elmer Alonzo Holbrook,	24	Braintree
	Mary Levangie,	23	Braintree
Apr. 22,	Winthrop Lincoln,	24	Northbridge
	Lucy J. Souther,	19	Hingham
Apr. 23,	George James Dodd,	26	Quincy
	Margaret Decoste,	18	Braintree
Apr. 27,	Jesse Lapham Cushing,	21	Weymouth
	Mary Elizabeth Jones,	20	Braintree
May 3,	Maurice James O'Connor,	22	Braintree
	Mary Ann Dalton,	20	Braintree
May 4,	John Calvin Holbrook,	30	Braintree
	Ellen Gibbons,	30	Dover
May 20,	Edward E. S. Carver,	21	Braintree
	Edith Stanton Madan,	22	Braintree

DATE.	NAME.	AGE.	RESIDENCE.
May 24,	Robert Edwin Gould,	22	Braintree
	Annie Sarah Holmes,	19	Braintree
June 1,	Harrison Tirrell Bates,	28	Weymouth
	Minnie E. Emery,	20	Braintree
June 1,	James Drummond Ellsworth,	20	Braintree
	Mabel Silsby Morrison,	21	Braintree
June 11,	Thomas Haven Dearing,	66	Braintree
	Helen A. Nevers,	36	Middleboro
June 18,	John Hallahan,	32	Holbrook
	Ella V. (Blanchard) Townsend,	34	Holbrook
June 20,	Fred Lincoln Glover,	23	Boston
	Eva Gertrude Whitmarsh,	23	Braintree
June 23,	John James Dunlap,	33	Braintree
	Nellie Myra Clark,	23	Braintree
June 7,	John Edward Coughlin,	36	Braintree
	Katy (Baker) Bates,	31	Weymouth
June 28,	Charles Quincy Hunt,	38	Braintree
	Maria Harris,	30	Holbrook
June 28,	Charles Apollos Hayward,	45	Braintree
	Florence Maria Loring,	44	Braintree
June 29,	John Neadom Rodgers,	24	Braintree
	Bessie Roberts Bennett,	22	Provincetown
July 1,	Frank Ernest Clapp,	24	Braintree
	Carrie Philipson,	28	Braintree
July 3,	James Francis McDonnell,	20	Braintree
	Mary Ann Maher,	21	Braintree
July 12,	Willie Henry Heath,	24	Braintree
	Bertha Miriam Hill,	20	Attleboro
Aug. 9,	Charles Coffin Webster,	70	Braintree
	Mary Frances Wood,	47	Ayer
Aug. 27,	Linwood Doten,	24	Braintree
	Maude Elena Soule,	19	Maine
Aug. 28,	Martin Frazier,	26	Braintree
	Victoria Carpenter	18	Braintree
Aug. 30,	Henry Munroe Faxon,	29	Quincy
	Lizzie Curtis Morrison,	18	Braintree
Sept. 5,	Thomas Ness,	28	Braintree
	Catherine Eva Griman,	19	Braintree
Sept. 19,	Eben Prescott,	26	Quincy
	Helen Winifred Arnold,	24	Braintree
Sept. 21,	Albert Edwin Bradford,	37	Braintree
	Sarah Lizzie Tenney,	20	Braintree
Sept. 28,	Henry Estese Paige,	24	Bernardston
	Lizzie Elodie Trefry,	23	Braintree
Sept. 29,	Byron Webster Thornton,	39	Braintree
	Lela May (Remington) Dean,	37	Braintree
Oct. 2,	Michael Conley,	29	Braintree
	Flossie Evna,	29	Braintree

DATE.	NAME.	AGE.	RESIDENCE.
Oct. 5,	Braddock Edson Fish,	60	Braintree
	Fanny Brown Sanger,	35	Boston
Oct. 12,	John Henry Frazier,	23	Braintree
	Mary Elizabeth Lonergan,	26	Weymouth
Oct. 18,	Richard Joseph Hennessy,	35	Braintree
	Alice J. McGrow,	26	Cambridgeport
Oct. 19,	George Gower Ellsworth,	28	Braintree
	Helen Maria Morrison,	26	Braintree
Oct. 24,	Frederic Francis Lane,	25	Braintree
	Addie Louise Call,	20	Braintree
Oct. 25,	Herbert Austin Thayer,	23	Braintree
	Annie Isabella Thayer,	25	Weymouth
Oct. 25,	Frederic W. Hunt,	33	Canton
	Ruth B. Robinson,	20	Braintree
Oct. 28,	John Joseph Daly,	21	Weymouth
	Elizabeth Ann Dalton,	22	Braintree
Nov. 21,	James Francis Lee,	28	Braintree
	Nora Agnes O'Connell,	26	Braintree
Nov. 23,	Frederic Raymond Carmichael,	22	Braintree
	Sarah Margaret Reviere,	18	Braintree
Dec. 6,	Isaac Dan Hurtle,	21	Quincy
	Theresa L. McMahon,	20	Braintree
Dec. 13,	Holley Tarrida Winkfield,	20	Braintree
	May Emily Stetson.	19	Braintree
Dec. 21,	William Osborn Pinckney,	25	Braintree
	Edith Maude Trufant,	20	Braintree
Dec. 23,	Henry Willis Doane,	22	Braintree
	Luella Augusta Chick,	21	Braintree
Dec. 24,	John Jones,	38	Quincy
	May Alice (Burch) Tuck,	34	Braintree
Dec. 26,	Walter Deacon,	25	Quincy
	Susan Harrington,	19	Braintree
Dec. 27,	Charles Francis White,	28	Braintree
	Emma Page Allen,	27	Braintree

Whole number of marriages, 63.

Birthplace of males : Braintree, 10 ; other places in Mass., 32 ; British Provinces, 7 ; Maine, 6 ; Ireland, 4 ; New York, Pennsylvania, Scotland and Germany, 1 each.

Females : Braintree, 20 ; other places in Mass., 20 ; British Provinces, 8 ; Maine, 4 ; New Hampshire, 3 ; New Jersey and Ireland, 2 each ; Rhode Island, England, Austria and Germany, 1 each.

Place of residence, males : Braintree, 43 ; other places in Mass., 19 ; New York, 1.

Females : Braintree, 42 ; other places in Mass., 19 ; Nova Scotia and Maine, 1 each.

Marriages solemnized in Braintree, 30 ; Weymouth, 14 ; Quincy, 7 ; Boston, 3 ; Hingham, Milford, Newton, Middleboro, Holbrook, Provincetown, Attleboro, Cambridge and Maine, 1 each.

Married for the first time : Males, 57 ; for the second time, 4 ; for the third time, 2. Females, for the first time, 57 ; for the second time, 6.

Average age of males, 28.75 ; females, 24.16 years.

BIRTHS IN 1893.

DATE.	NAME.	PARENTS..
Jan. 3,	Edward McLean Andrew,	Alexander and Annie (McLean)
8,	William Ernest Bisson,	Ernest H. and Sarah L. (Pratt)
11,	Everett Sumner Perry,	J. Frank and Lizzie F. (Sanborn)
16,	George William Smith,	George E. and Olive V. (Brow)
17,	Edwin Foster Litchfield,	Edwin C. and Mary F. (Whitcomb)
25,	Eva Muriel Holman,	Benj. F. and Mary C. (Tenney)
27,	—— — Durell,	Alexander and Maggie A.
Feb. 1,	Mary Alice Pitts,	John and Annie (Vigneaux)
1,	Jennie Helen Aitkin,	William D. and Minnie A. (Smith)
2,	—— — Meley,	Stephen and Honora (Welsh)
3,	Mildred Richards Dyer,	Moses T. and Ida M. (Thayer)
7,	Genevieve Mildred Gogan,	James A. and Kate F. (Lee)
11,	Elizabeth Kneeland,	Herbert F. and Minnie F. (Jones)
12,	Eugene Ellsworth Hayden,	Caleb H. and Emma F. (Pierce)
22,	Gordon Campbell Drake,	Frank E. and Clara A. (Higgins)
Mar. 2,	Florence May Trott,	Joseph H. and Mary E. (Piercy)
9,	Selina Mary Davis,	James P. and Selina M. (Strauss)
9,	Cecilia Elizabeth Davis,	“ “ “ “
12,	Aaron Cohen,	Abraham and Rachael G. (Bandel)
12,	Willie Howard Johnson,	Robert and Catherine E. (Healy)
18,	Jacob Blumenthal,	Joseph and Sarah (Silverman)
21,	Helen Louise Gallivan,	Jeremiah F. and Hannah A. (Lee)

DATE.	NAME.	PARENTS.
Mar. 22,	Edward Joseph Conley,	John and Katie L. (McCue)
24,	Mary Dillon,	Daniel and Catherine (Gill)
28,	Ethel Julia Doane,	David G. and Emma A. (Maxwell)
April 1,	Mary Louisa Brow,	Thomas C. and Louisa J. (Pitts)
6,	—— — O'Connor,	Arthur W. and Mary (Delory)
6,	Mabel Johnson,	Walter and Katherine (Turley)
10,	Fayolin Currier Robinson,	John H. G. Mary E. (Currier)
14,	—— — Dwyer,	Cornelius and Katy (O'Neil)
16,	Willian DeNeil,	Richard and Ellen E. (Viger)
16,	Joseph H. Decoste,	Benjamin and Kate (Levangie)
18,	Edward Whitman Manfield,	Francis J. and Etta M. (Beyett)
24,	Mary Louise Woodworth,	[Charles W. and Annie F. (French)
May. 3,	Arthur Wesley Hunt,	Leonard P. and Janette M. (Harris)
6,	Evelyn Harriet Bridgham,	Stafford S. and Emma (Oulton)
9,	Sarah Albertson,	Nathan and Fannie (Smith)
9,	Martha Frances Gallivan,	Daniel J. and Bridget G. (Coffey)
17,	Joseph William Mulcahey,	John W. and Helen M. (Kelly)
18,	Mary Catherine Griffin,	John and Mary E. (McCormick)
18,	Harry Lee Mansfield,	Wm H. and Bertha H. (Johnson)
26,	—— — Frye,	Caleb B. and Ellen C.
June. 6,	Ernest Dejon,	Simon and Mary (Cote)
18,	Marion Francis Bill,	Daniel F. and Mary E. (Gorman)
22,	Walter Irving Cunningham,	Wm. H. and Mary E. (Dennehy)
30,	Frank L. Allen,	James D. and Sarah E. (Billiard)
July. 6,	Hilda Johnson,	August and Ingrede (Bjorkman.)
10,	Helen Condrick,	C. P. and Margaret F. (Lonergan)
10,	—— — Eaton,	J. A. and Idella M. (Whitehouse)
11,	—— — Ratcliffe,	George W. and Ethel A. (Thayer)
11,	—— — Kemp,	Abbot L. and Margaret A.
12,	George Tobey,	Harrison L. and Helen M. (Beal)
15,	Madeline Angelo,	David and Muia (Alada)
19,	Margaret Sullivan,	John and Honora (O'Connor)
21,	William Everett Dyer,	E. Webster and Anna J. (Downey)
22,	Mary Hay,	James and Jennie.
Aug. 1,	—— — Delory,	Peter and
2,	Harold H. Harnish,	Isaiah and Sarah J. (Roy)
2,	Alphonso Taylor,	A. W. and Margaret (Gartland)
3,	—— — Howland,	W H. and Lillian R. (Pennimann)
3,	Fannie Harrison Donahoe,	Thomas and Charlotte (McIntosh)
11,	Elizabeth Stowell Shaw,	Edwin F. and Lu L. (Kingsley)
12,	—— — Sullivan,	Patrick F. and Bridget (O'Hara)
12,	—— — Sullivan,	" " "
17,	Annie Helen Lane,	James and Alice H. (Havey)
19,	Margaret Josephine McCarty,	Daniel and Ellen (Ryan)
20,	John Bernard McCarthy,	Richard and Elizabeth (Hogan)
28,	—— — Holbrook,	Annie.
Sept. 2,	Miriam Hazel Foss,	P. E. and Edith. N. (Chandler)

DATE.	NAME.	PARENTS.
Sept. 2,	Girororana Alpina Spero,	Angelo and Catherina (Novelina)
5,	Olive Beatrice Mann.	Rufus E. and Susie L. (Guild)
9,	—— — White,	Richard and Mary E. (O'Sullivan)
9,	Freddie Sampson,	George and Sarah (Levangie)
14,	Sylvia Dean Storrs,	Richard S. and Clara F. (Curtis)
21,	Sophia Levangie,	Michael and Sophia (Brown)
24,	Alice Irene Powers,	John T. and Mary A. (McDermott)
Oct. 1,	Harold Elmer Dyer,	Millard F. and Annie (Hollis)
1,	Herbert Millard Dyer,	" " "
7,	Everett Laughlin McDougall,	Frank and Sadie (Knights)
8,	Helen Maginnis,	James E. and Helena M. (Keith)
10,	Herbert Kimball Simpson,	Edmund S. and Ilda (Allen)
10,	Charles Packard,	Charles E. and Mary A. (Briody)
17,	Mildred Brown,	Seth F. and Cora C. (Haynes)
20,	—— — Decoste,	Robert and Alice (Sampson)
22,	—— — Sawyer,	Fred A. and Lizzie A.
23,	James McDonough,	John and Maggie (Cain)
23,	John Joseph Reardon,	
25,	Thomas Francis Donovan,	Thomas F. and Rose A. (Duffy)
27,	Thomas O'Toole,	Michael and Margaret (McGough)
28,	—— — Thayer,	Edward A. and Lucy (Robison)
29,	Maggie Alice Dalton,	Thomas J. and Mary (McDermott)
Nov. 1,	Mary Elizabeth Levangie,	William D. and Lucy J. (Frazier)
4,	George J. Mahoney,	A. F. and Catherine F. (Goffe)
21,	William Rogers,	Simon and Mary (Pitts)
26,	Charlotte Leonard,	W.H. and Charlotte A. (Richardson)
Dec. 12,	Ethel Margaret Madden,	Harry J. and Sarah A. (O'Donnell)
14,	Clara Lizzie Jackson,	Chester M. and Flora L. (Belcher)
15,	Clinton Scollard,	John V. and Annie T. (Shea)
15,	Wilhelmina Rymarczick,	Gustav R. and Rose M. (Miller)
16,	Theron Irving Cain,	Daniel E. and Ellen G. (Besse)
16,	Charlie Robert Frazier,	Charles and Rosanna (Braaw)
17,	Sarah Florence Newcomb,	George D. and Sarah B. C. (Buker)

DEATHS IN BRAINTREE IN 1893.

DATE.	NAME.	BIRTHPLACE.	AGE		
			Y.	M.	D.
Jan. 5,	Bridget (Conocan) Finnegan,	Ireland,	62	4	—
8,	Mary J. (Buck) Brewster,	Norway, Me.,	79	2	3
13,	Edna L. Pace,	Braintree,	—	4	13
17,	Eben Stevens,	Andover,	43	1	12
17,	Jonathan Skilton,	Burlington,	43	9	6

DATE.	NAME.	BIRTHPLACE.	AGE		
			Y.	M.	D.
Jan. 28,	Josie H. (Mayhew) Woodman,	Braintree,	25	9	10
31,	Martha (Leighton) Keene,	Ireland,	71	—	—
Feb. 9,	Francis Anderson,	Boston,	23	—	—
11,	Mary (Bleakie) Taylor,	England,	67	—	—
15,	Arthur W. Holbrook,	Braintree,	—	5	26
18,	Helen Maud Taylor,	"	4	3	22
20,	Asa Thomas Pratt,	Boston,	72	2	10
22,	Susan L. (Hill) Hollis,	Braintree,	34	4	17
24,	Thomas Flanagan,	"	—	9	22
26,	George Shea,	Taunton,	3	9	15
Mar. 2,	Mary E. (Carr) Dinsmore,	Maine,	41	7	—
5,	Annie Gertrude Cavanagh,	Braintree,	20	2	20
6,	Mary (Fitzgerald) Griffin,	Ireland,	61	4	—
8,	Harriet H. (Reynolds) Waymouth,	Maine,	65	—	—
9,	Patrick Hennigan,	Ireland,	79	3	—
9,	Elizabeth P. (Bowditch) Carver,	Vermont,	73	11	2
9,	Mary (Child) Duncklee,	Maine,	71	11	20
12,	Henrietta R. (Hinsman) Saunders,	Marblehead,	37	10	—
12,	Mary L. Morrill,	Braintree,	—	5	18
15,	Mary P. (Breen) Whitcomb,	Holbrook,	51	4	3
18,	Thomas Missett,	Ireland,	74	—	—
23,	Annie M. Landry,	Braintree,	—	8	16
30,	Ann W. (French) Bowditch,	Boston,	75	7	6
Apr. 6,	Moses C. Tibbetts,	Newburyport,	76	—	—
18,	Catherine (O'Sullivan) Hennessy,	Ireland,	76	—	—
25,	John O'Connell,	Ireland,	52	—	—
28,	Nancy A. Hayden,	Easton,	76	—	—
May 4,	Mary (Tower) Belcher,	Braintree,	81	10	17
4,	Clarissa (Thayer) Sanborn,	Braintree,	88	10	9
7,	Augustus A. Randall,	Braintree,	55	4	9
12,	Sylvanus Wilson,	Maine,	69	10	12
12,	Patrick Cahill,	Ireland,	69	—	—
17,	Bridget (Walsh) Finnegan,	Ireland,	59	—	—
20,	William E. Bisson,	Braintree,	—	4	12
22,	Catherine F. (Cox) Braley,	Boston,	71	9	15
June 3,	Henry J. Willey,	Quincy,	46	1	15
5,	Nelson M. Hubert,	New York,	48	8	—
7,	Nellie Thayer,	Charlestown,	34	2	28
11,	Jennie (McGowen) Shaw,	Nova Scotia,	45	—	—
15,	Mary E. (Evens) Nolan,	Ireland,	85	—	—
July 2,	J. H. D. Pettis,	Vermont,	53	5	26
5,	John Bowditch,	Braintree,	80	10	5
10,	——— Eaton,	Braintree,	—	—	—
13,	George Tobey,	Braintree,	—	—	1
14,	Catherine S. (Goodhue) White,	Dracut,	64	6	14
16,	John Hayer,	Ireland,	28	—	—

DATE.	NAME.	BIRTHPLACE.	AGE		
			Y.	M.	D.
July 17,	Olive L. Hollis,	Braintree,	—	10	20
19,	Idella M. (Whitehouse) Eaton,	Nova Scotia,	24	8	25
19,	Addie A. (Penniman) Peckham,	Braintree,	38	6	20
20,	Henry F. Hayden,	Braintree,	2	4	3
21,	William E. Dyer,	Braintree,	—	—	1
Aug. 6,	Margery J. (Allis) Gomez,	Maine,	74	4	20
11,	Frederic W. Hollis,	Braintree,	1	1	7
12,	Elizabeth S. Shaw,	Braintree,	—	—	1
12,	——— Sullivan,	Braintree,	—	—	—
13,	Thomas J. Missett,	Scotland,	29	—	—
14,	George Anderson,	Braintree,	—	10	9
16,	James Croke,	Ireland,	73	—	—
19,	Mary E. (Curran) Finnegan,	Boston,	43	4	11
21,	Mary A. (Stiles) Hayden,	Waltham,	56	2	19
24,	Mary C. (Walsh) South,	Nova Scotia,	66	4	26
28,	Ezekiel R. Waterman,	Halifax,	73	10	26
31,	Mary L. Brown,	Braintree,	—	5	—
Sept. 3,	Thomas B. Vinton,	Holden,	74	9	24
4,	——— Holbrook,	Braintree,	—	—	—
4,	Edwin F. Litchfield,	Braintree,	—	7	18
5,	Gilman D. Whittaker,	Salem, N. H.,	71	4	25
7,	Elsie M. Tolan,	Boston,	—	4	—
20,	Jeremiah White,	Ireland,	54	—	—
21,	Sophia Levangie,	Braintree,	—	—	—
21,	Elizabeth (McLaughlin) Doherty,	Ireland,	53	—	—
23,	William A. Johnson,	Braintree,	—	9	12
24,	Joseph H. Decoste,	Braintree,	—	5	7
29,	Margaret M. Reardon,	Braintree,	—	10	29
Oct. 1,	Ellen A. Williams,	Braintree,	64	10	16
6,	Harold H. Harnish,	Braintree,	—	2	4
11,	Frances (Corey) Chapman,	Connecticut,	63	6	10
15,	George E. Archibald,	Quincy,	—	9	17
17,	William A. Bishop,	Bradford,	74	10	—
18,	Ellen B. (Dailey) Flannagan,	Reading,	32	6	—
18,	Isabel L. Penniman,	Braintree,	16	3	1
14,	H. Arthur Pierce,	Braintree,	30	2	24
19,	John E. Eldridge,	Hyde Park,	5	2	23
24,	Lucy A. McManus,	Braintree,	5	10	12
24,	Elisha B. Nightingale,	Braintree,	54	9	28
Nov. 5,	George J. Mahoney,	Braintree,	—	—	1
6,	George W. Young,	Maine,	74	10	22
23,	Charles C. Gregg,	Maine,	55	—	—
24,	Albert L. Tobey,	Boston,	5	4	23
25,	Walter I Cunningham,	Braintree,	—	5	4
26,	Edith L. Loring,	Weymouth,	5	7	17
29,	Lizzie M. Porter,	Braintree,	5	7	28

DATE.	NAME.	BIRTHPLACE.	AGE		
			Y.	M.	D.
Dec. 6,	Maria F. (White) Thayer,	Braintree,	72	4	6
10,	Cora I. Holbrook,	Braintree,	7	4	1
10,	Charles Packard,	Braintree,	—	2	—
10,	Moses Hunt,	Quincy,	79	—	—
13,	John Stoddard,	Boston,	74	3	11
21,	Joseph Dyer,	Braintree.	73	10	9
24,	Emily W. Herrick,	Braintree,	8	10	3
25,	Hosea Jackson,	Abington,	49	11	7
25,	Abigail J. (Hollis) Hobart,	Braintree,	75	—	—
28,	Maria L. (Branley) Shay,	Braintree,	43	10	19
30,	James J. Coleraine,	Braintree,	23	11	30

Whole number of deaths in 1893, 108.

Males, 51; females, 56; unknown, 1; single, 45; married, 43; widowed, 18; divorced, 2.

Birthplace: Braintree, 48; other places in Massachusetts, 28; Ireland, 14; Maine, 8; British Provinces, 3; Vermont, 2; New York, Connecticut, New Hampshire, England and Scotland, 1 each.

Ages: Under 1 year, 26; between 1 and 10, 11; between 10 and 20, 1; between 20 and 30, 7; between 30 and 40, 6; between 40 and 50, 9; between 50 and 60, 10; between 60 and 70, 10; between 70 and 80, 24; between 80 and 90, 4. Average age, 41 years.

Birthplace of parents. Fathers — Braintree, 21; other places in Massachusetts, 26; Ireland, 23; British Provinces, 11; Maine, 10; England 5; New Hampshire, 3; Connecticut, Vermont and New York, 1 each; unknown, 6. Mothers — Braintree, 11; other places in Massachusetts, 35; Ireland, 26; British Provinces, 16; Maine, 7; Connecticut, New York and New Hampshire, 2 each; Vermont and England, 1 each; unknown, 5;

Buried in Braintree, 37; Weymouth, 23; Quincy, 23; other places, 25.

Causes of death: Pneumonia, 16; consumption, 15; heart disease, 14; paralysis, 9; diphtheria, 6; cholera infantum and

tumor, 5 each; Bright's disease, accidental and premature birth, 4 each; meningitis, burns and still-born, 2 each; dropsy, nephritis, rupture, scarlet fever, old age, suicide, cyrrhosis, asthma, polypus, bronchitis, colitis, enteritis, hemorrhage, neurosis, thrombosis, convulsions, dentition and brain disease, 1 each.

TOWN RECORDS.

NORFOLK, ss. To either of the Constables of the Town of Braintree,

GREETING :

In the name of the Commonwealth of Massachusetts, you are hereby required to notify and warn the inhabitants of the Town of Braintree, qualified to vote in town affairs, to meet at the Town Hall, in said Braintree, on Monday, March 6th, 1893, at seven o'clock in the forenoon, to act on the following articles, namely :

ARTICLE 1.—To choose a moderator to preside at said meeting.

ART. 2.—To hear the report of the several town officers and act thereon.

ART. 3.—To determine the manner of repairing the highways and bridges the ensuing year.

ART. 4.—To see if the town will accept Sections 74, 75, 76, and 77 of Chapter 27 of the Public Statutes and choose a board of Road Commissioners.

ART. 5.—To choose all necessary town officers for the ensuing year, and also to vote on the following question, as required by Chapter 54 of the Acts of 1881, namely: "Shall licenses be granted for the sale of intoxicating liquors in this town?"

ART. 6.—To see what action the town will take in relation to hiring money for any purpose.

ART. 7.—To see if the town will accept the Jury List as made by the Selectmen.

ART. 8.—To raise and appropriate such sums of money as may be necessary to defray the expenses of the town for the ensuing year.

ART. 9.—To see if the town will vote an appropriation of \$175, and pay the same to General Sylvanus Thayer Post, G. A. R., for the purpose of assisting them in defraying the expenses of memorial services on Memorial Day.

ART. 10.—To see how the town will vote to pay the members of the fire department.

ART. 11.—To see if the town will vote to charge interest on all taxes that remain unpaid after a certain date.

ART. 12.—To see if the town will vote to raise and appropriate such sums of money as may be necessary to pay the interest on the water bonds and for the sinking fund established for the payment of said bonds.

ART. 13.—To see if the town will appropriate a sum of money to convey pupils to and from the public schools.

ART. 14.—To see if the town will reappropriate the unexpended balance of money in the treasury for the completion of the new road leading from Union street to Middle street.

ART. 15.—To see if the town will take measures to print an account of the proceedings at the two hundred and fiftieth anniversary of its incorporation, and make an appropriation therefor.

ART. 16.—To see if the town will vote to repeal the old and adopt a new code of By-Laws, as recommended by the Judge of the Superior Court.

ART. 17.—To see if the town will raise and appropriate a sum of money for the extension of the water main on Liberty, corner of Stetson street, to a point on Liberty, corner of Middle street.

ART. 18.—To see if the town will appropriate the sum of \$125 for the purpose of placing four more arc lamps, or their equivalent in incandescents, in such location as the Selectmen shall determine.

ART. 19.—To see if the town will reduce the percentage charged on the Hayward street extension of the water main to the regular schedule rate.

ART. 20.—To see if the town will reappropriate the unexpended balance of the money appropriated at the town meeting of January 11th, 1893, for the purpose of extending the electric light plant.

ART. 21.—To see if the town will vote to appropriate a sum of money sufficient to pay the interest on the bonds that the Town Treasurer was authorized to issue at the town meeting of January 11th, 1893, for the purpose of extending the electric light plant,

and to establish a sinking fund sufficient, with the accumulations thereof, to pay the principal of said bonds at their maturity.

ART. 22.—To see if the town will appropriate the sum of \$5,000 for the purpose of paying the operating expenses of the electric light plant during the coming year.

ART. 23.—To see if the town will authorize the Selectmen to convey to General Sylvanus Thayer Post, G. A. R., lots No. 1, 2, 3, and 4 in Plain Street Cemetery, for their use as a soldiers' burial lot.

ART. 24.—To see if the town will vote to amend Section 1 of Article 4 of the By-Laws of the town, by making the first day of January, instead of the first day of February, the beginning of the financial year.

ART. 25.—To see if the town will instruct the Board of Selectmen to borrow the sum of \$3,000; said sum to be placed at the disposal of the Board of Water Commissioners to extend the water system.

ART. 26.—To see if the town will instruct the Board of Health to cause Lakeview Cemetery, so called, to be closed against future interments.

ART. 27.—To see if the town will raise and appropriate the sum of \$250; said sum to be expended by the Board of Water Commissioners for the purpose of engineering, so that a plan may be laid before the town for the better protection of the borders of Little Pond.

ART. 28.—To see if the town will appropriate the sum of \$750 for the purpose of placing in position three public drinking fountains—one in each part of the town; said sum to be expended under the direction of the Board of Water Commissioners.

ART. 29.—To see if the town (if deemed expedient) will vote to borrow the money on notes instead of issuing bonds as voted at the town meeting held on the 11th day of January, 1893, under Article 4 in the warrant calling said meeting; said appropriation being made under the provisions of Chap. 370 of the Acts of the Legislature of Massachusetts, passed in the year 1891.

ART. 30.—To see if the town will vote to raise and appropriate

the sum of \$32,000 for the erection of a school house and the purchase of a lot of land for the location of the same in the east section of the town, and also to determine the method of raising said money.

ART. 31.—To see if the town will appropriate the sum of \$4,500 for the purpose of improving the heating, ventilating and sanitary system at the Iron Works schoolhouse, as required by law and as ordered by the State Inspectors of public buildings.

ART. 32.—To see if the town will choose a Board of Health.

ART. 33.—To see if the town will vote an appropriation of \$200 to shingle and put new platforms at engine houses at the east and south parts of the town.

ART. 34.—To see if the town will vote an appropriation of \$600 for the purchase of new hose.

ART. 35.—To see if the town will vote an appropriation of \$250 for the purchase of harnesses for the fire department.

ART. 36.—To see if the town will vote to instruct the Engineers to present the engine in the south part of the town to the B. V. F. A., and to dispose of the engine and condemned hose in the east part of the town, the proceeds of the same to be used for the fire department.

ART. 37.—To see if the town will vote an appropriation of \$3,500 to establish a fire alarm, and to appoint a committee for the same.

ART. 38.—To see what action the town will take in relation to the claims of Stevens & Willis and the estate of Sarah W. Glover, for taking the water of Little Pond; also of George P. Niles and others for taking the water of Great Pond; also in relation to the suit of Henry Gardner for services in the water suit before Commissioners Lowell, Williams and Ware.

ART. 39.—To see if the town will accept Sec. 72 of Chap. 423 of the Acts of the Legislature of Massachusetts, passed in the year 1890, and divide the town into voting precincts.

ART. 40.—To choose any committee or hear the report of any committee, and act thereon.

You are to give notice of this meeting by posting up true and attested copies of this warrant in not less than nine public places in this town seven days at least before the time of said meeting, and by publishing once in the Braintree Observer.

Hereof fail not and make return of this warrant with your doings thereon to the Town Clerk before the time of said meeting.

Given under our hands at Braintree, this twentieth day of February, in the year of our Lord one thousand eight hundred and ninety-three.

ANSEL O. CLARK,
NATHANIEL F. HUNT,
J. FRANKLIN BATES,

Selectmen of Braintree.

A true copy, attest:

HORACE FAXON,

Constable of Braintree.

NORFOLK, ss.

BRAINTREE, Feb. 23, 1893.

Pursuant to the foregoing warrant, I hereby notify and warn the inhabitants of the town of Braintree, qualified as herein expressed, to meet at the time and place, and for the purposes herein named.

HORACE FAXON,

Constable of Braintree.

BRAINTREE, March 6, 1893.

In accordance with the foregoing warrant, the meeting was called to order and the warrant read by the Town Clerk.

Ansel O. Clark appointed to check the list, and was sworn by the Town Clerk.

Upon ballot, Francis A. Hobart was unanimously elected Moderator and sworn by the Town Clerk.

Voted, That Art. 2 be laid upon the table.

ART. 3. Voted, that the highways and bridges be repaired in accordance with Chap. 98 of the Acts of the Legislature of 1889.

ART. 4. Was laid on the table.

ART. 5. Voted, to proceed to the election of the following town officers on one ballot, namely: Town Clerk, Town Treasurer, 3 Selectmen (who shall be Assessors and Overseers of the Poor), 2 School Committee for 3 years, 1 for 2 years and 2 for 1 year, Water Commissioner, 3 Auditors, 3 Fence Viewers, and 10 Constables, and also at the same time vote on the question, "Shall licenses be granted for the sale of intoxicating liquors in this town?"

Moderator declared the polls open at 7h. 24m. A. M.

Voted, that the polls be kept open until 2h. 20m. P. M., and then closed, and at that time they were declared closed.

The Moderator declared the result of the ballot as follows, namely:

Whole number of ballots, 653.

Town Clerk—Blanks, 5; Samuel A. Bates, 648, and he was declared elected and sworn by the Moderator.

Town Treasurer—Blanks, 2; Peter D. Holbrook, 651, and he was declared elected and sworn.

Selectmen, Assessors and Overseers of the Poor—Blanks, 61; N. F. T. Hunt, 1; N. H. Hunt, 2; Thanter H. Hunt, 2; Nathaniel F. Hunt, 207; Alfred Southworth, 289; J. Franklin Bates, 331; John V. Scollard, 430; Ansel O. Clark, 636, and Ansel O. Clark, John V. Scollard and J. Franklin Bates were declared elected and sworn.

School Committee, for 3 years—Blanks, 6; Henry L. Dearing, 650; Oliver Huckel, 650; and they were declared elected and accepted the position.

For 2 years—Blanks, 3; Albion C. Drinkwater, 650, and he was declared elected, and accepted.

For 1 year—Blanks, 5; J. Crickmay, 1; Samuel C. Bridgham, 652; and Thomas A. Watson, 648, and the two latter were declared elected, and accepted.

For Water Commissioner—Blanks, 20 ; John V. Scollard, 633 ; and he was declared elected, and accepted.

For Auditors—Blanks, 5 ; Daniel Potter, 652 ; L. Willard Morrison, 651 ; and Charles G. Sheppard, 651 ; and they were declared elected, and sworn.

For Fence Viewers—Blanks, 8 ; Freeman G. Crosby, 653 ; Albert Hobart, 652 ; and Charles A. Belcher, 646 ; and they were declared elected, and sworn.

For Constables—Blanks, 92 ; Horace Faxon, 647 ; James R. Qualey, 639 ; Henry M. Storm, 648 ; Albert Hobart, 648 ; James A. Reynolds, 647 ; Robert M. Loring, 645 ; John Kelley of Commercial street, 626 ; were declared elected, and sworn.

John E. Long, 644 ; Charles G. Anderson, 647 ; and Edwin L. Curtis, 647 ; were declared elected, but declined to serve.

“Shall licenses be granted for the sale of intoxicating liquors in this town?” Yes, 164 ; no, 312. Total, 476.

Voted to adjourn until Monday, March 13, 1893.

BRAINTREE, March 13, 1893.

The meeting was called to order by the Moderator, in accordance with the adjournment from March 6, 1893.

ART. 5 before the meeting.

Voted that we chose three measurers of grain.

J. Marcus Arnold was chosen.

Voted that the others be appointed by the Selectmen.

Voted that we choose five weighers of hay, who shall also be measurers of wood, and the following were chosen, namely :

J. Marcus Arnold, sworn ; Peter B. Lawson sworn ; Martin L. Tupper, sworn ; William Allen, sworn ; Edward M. Wight, sworn.

Voted that we choose three measurers of lumber, and the following persons were chosen, namely :

Martin L. Tupper, sworn ; Henry Gardner, sworn ; George E. Fogg, sworn.

Voted that we choose one measurer of leather, one pound keeper and three field-drivers.

Voted that they be appointed by the Selectmen.

ART. 5 was laid on the table.

ART. 6 taken up.

Voted unanimously that the Treasurer be authorized, with the approval of the Selectmen, to hire money in anticipation of taxes of the current fiscal year, and to issue notes of the town therefor; and the debts incurred under the authority of this vote are hereby made payable from said taxes.

ART. 7 taken up.

Voted, that the following Jury list, as made by the Selectmen Feb. 1, 1893, be accepted :

William Allen, Edwards P. Allen, Richard L. Arnold, J. Sargent Arnold, John M. Arnold, Franklin E. Arnold, Andrew J. Bates, Charles S. Bates, Charles A. Belcher, George S. Boyer, Joseph D. Bradford, Lewis Dyer, Brainard T. Dyer, George A. French, George G. French, Henry Gardner, Edward A. Hale, Elijah C. Hall, Thomas W. Herrick, J. Samuel Hill, Francis E. Hayward, Jonathan P. Hayward, Ellis Hollingsworth, Edward W. Hobart, Charles A. Hobart, William A. Hollis, Aubrey Hiliard, Bradford Y. Knight, William A. Kane, Frederic P. Lothrop, Charles H. Loring, Frank G. Lunt, Henry A. Monk, Michael McDermott, William B. Merritt, Lyman W. Morrison, William M'Ewan, George W. Osgood, F. Alton Oliver, Edward O. Pier-son, Elbridge F. Porter, Rodolphus Porter, Fred. G. Pennock, John Reed, Charles G. Richards, John V. Scollard, Arthur J. Shaw, Chester H. Shaw, Martin V. B. Shaw, William H. Stevens, Richard M. Sanborn, Charles G. Sheppard, Caleb Thompson, Foster F. Tupper, William A. Tupper, Amasa S. Thayer, Henry H. Thayer, David H. B. Thayer, Alden A. Thorndike, G. Henry Tuttle, Henry B. Vinton, I. Francis Vinton, Thomas A. Watson, Jonathan F. White, Joseph Whitely, Ezra H. Waite, John Whitty, Edward M. Wight, B. Herbert Woodsum, Henry B. Whitman.

ART. 16 taken up.

Voted, That a committee consisting of the moderator, town clerk, and three citizens to be appointed by the chair, shall take into consideration the subject of the By-Laws of the town, and report a new code of By-Laws as recommended by the Judge of the Superior Court. Moderator appointed John V. Scollard, Asa French, and Elmer E. Abercrombie.

ART. 36 taken up.

Voted, That the town instruct the engineers to loan the engine in the south part of the town to the Braintree Veteran Firemen's Association.

Voted, That the engineers sell the condemned hose in the east part of the town, the proceeds to be used for the support of the Fire Department.

ART. 39 taken up.

Moved, That the town accept Sect. 72, of Chap. 423 of the Acts of the Legislature of Massachusetts passed in the year 1890, and instruct the Selectmen to divide the town into three voting precincts.

This motion was not carried, 32 Yes and 38 No.

ART. 9 taken up.

Voted, To appropriate the sum of \$175, and pay the same to General Sylvanus Thayer Post, G. A. R., for the purpose of assisting them in defraying the expenses of Memorial Day.

ART. 12 taken up.

Voted, To appropriate the sum of \$5000 for the sinking fund of the water bonds.

Voted, To appropriate the sum of \$850 for interest on water bonds.

Voted, To appropriate the sum of \$3650 for Hydrant service, the same to be used for the payment of interest on the water bonds.

Voted, That the sum of \$5500 be appropriated from the domestic

revenue of the water department for payment of interest on water bonds.

ART. 25 taken up.

Voted, To appropriate the sum of \$3000 to be placed at the disposal of the board of water commissioners to extend the water system.

ART. 17 was taken up, and it was voted that said article be referred to the water commissioners.

ART. 14 taken up.

Voted, To re-appropriate the sum of \$1000, now in the treasury, for the completion of the new road leading from Union street to Middle street.

ART. 10 taken up.

Voted, To appropriate the sum of \$2150 for the general expenses of the Fire Department.

Voted, That the Chief Engineer of the Fire Department be paid the sum of \$50; the Assistant Engineers, \$25 each; and the members \$15 each, for their services the ensuing year.

ART. 33 taken up.

Voted, To appropriate the sum of \$200 to shingle and put new platforms at engine houses at the east and south parts of the town.

ART. 34 taken up.

Voted to appropriate the sum of \$600 for the purchase of new hose.

ART. 35 taken up.

Voted, To lay this article on the table.

ART. 37 taken up.

Voted, That it be indefinitely postponed.

ART. 28 taken up.

Voted, that it be indefinitely postponed.

ART. 8 taken up.

Voted to appropriate the sum of \$12,300 for the salaries of teachers in the public schools.

Voted that the income of the state and town school funds, and the dog tax be appropriated for the payment of the salaries of the teachers in the public schools.

Voted to appropriate the sum of \$1,080 for the payment of janitors of the public schoolhouses.

Voted to appropriate the sum of \$1,000 for fuel for the public schools.

Voted to appropriate the sum of \$700 for the incidental expenses of the schoolhouses.

Voted to appropriate the sum of \$500 for the incidental expenses of schools.

Voted to appropriate the sum of \$1,100 for the purchase of text books and supplies.

Voted to appropriate the sum of \$1,200 for the payment of the Superintendent of Schools.

ART. 8. Laid on the table.

ART. 13 taken up.

Voted to appropriate the sum of \$200 to convey pupils to and from the public schools.

ART. 8 taken up.

Voted to appropriate the sum of \$2,000 for the purpose of establishing three kindergarten schools, one in each part of the town.

ART. 30 taken up.

Voted that this article be referred to a committee of five, consisting of Thomas A. Watson, Josephus Sampson, Daniel Potter, George D. Willis and Alva S. Morrison, who shall report at the adjourned meeting in April next.

ART. 31 taken up.

Voted to lay it on the table.

ART. 15 taken up.

Voted to appropriate the sum of \$200 for the purpose of publishing an account of the proceedings at the two hundred and fiftieth anniversary of the incorporation of the town in pamphlet form, and that a copy of said pamphlet be given to every family in town, and that the Town Clerk is hereby instructed to carry this vote into effect.

ART. 27 was taken up.

Voted to appropriate the sum of \$250, to be expended by the Water Commissioners, for the purpose of engineering, so that a plan may be laid before the town for the better protection of the borders of Little Pond.

ART. 20 taken up.

Voted to re-appropriate the sum of \$16,500, which was appropriated January 11, 1893, for the purpose of extending the electric light plant.

ART. 21 taken up.

Voted that the Town Treasurer be and hereby is authorized and directed, under direction of the Selectmen, to issue ten notes of the town — instead of the bonds, as voted at the town meeting of Jan. 11, 1893 — for the purpose of extending the electric light plant.

ART. 29 taken up.

Voted that the aforesaid notes be of face value of \$1,650 each, and to run 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 years, respectively, bearing interest at the rate of not more than 4 per centum per annum; and that the Selectmen be instructed to raise by taxation each year the sum of \$1,650, together with a sum sufficient to pay the accrued interest on all of said notes remaining unpaid; until all of said notes are liquidated.

ART. 18 taken up.

Voted to appropriate the sum of \$125 for the purpose of placing four more arc lamps, or their equivalent in incandescents, in such location as the Selectmen may determine.

ART. 22 taken up.

Voted to appropriate the sum of \$5,000 for the purpose of paying the operating expenses of the electric light plant during the coming year.

ART. 8 taken up.

Voted to appropriate the sum of \$4,000 for the support of poor, including soldiers' relief.

Voted to appropriate the sum of \$4,000 for the repairs of highways, of which sum \$1,000 shall be expended for sidewalks.

Voted to appropriate the sum of \$3,000 for stone roads.

Voted that the Selectmen have authority to draw orders on the treasury for the sum of \$1,200, to pay for State Aid, under Chap. 301, and also the sum of \$500 for hospital expenses, the same to be refunded to the town treasury.

Voted to appropriate the sum of \$200, under Chap. 279 of the Statutes.

Voted to appropriate the sum of \$1,000 for the removal of snow.

Voted to appropriate the sum of \$2,000 for the incidental expenses of the town.

Voted to appropriate the sum of \$2,700 to pay the officers of the town.

Voted to appropriate the sum of \$600 for the payment of the janitor of the Town Hall, etc.

Voted to appropriate the sum of \$800 for abatement and collection of taxes.

Voted to appropriate the sum of \$100 for town lands.

Voted to appropriate the sum of \$800 for the Thayer Public Library.

Voted to appropriate the sum of \$100 for the distribution of books from the Public Library.

Voted to appropriate the sum of \$700 for insurance on public buildings.

Voted to appropriate the sum of \$3,000 for interest on town debt.

Voted to appropriate the sum of \$3,300 to pay one schoolhouse note.

Voted to appropriate the sum of \$2,000 to pay one electric light note.

Voted to adjourn to Monday, April 3, 1893, at 7.45 o'clock, P. M.

BRAINTREE, April 3, 1893.

The meeting was called to order by the Moderator, in accordance with the adjournment from March 13, 1893.

Hon. Francis A. Hobart, the Moderator, then submitted the following communication to the town, namely :

On the 19th day of September, 1870, I was for the first time elected to the position of Moderator in this town, and for twenty-three consecutive years, from March, 1891 to March of the present year, I have served in that capacity at your annual meetings.

At fifty-one special meetings I have been chosen to fill the same position, which with thirty-eight adjourned meetings makes a total of one hundred and twelve town meetings over which I have presided.

From the time I was a voter in 1854, covering a period of nearly thirty-nine years, during which time about two hundred town meetings have been held, I have been absent from one only, and then because I was outside the limits of the state.

As I have stood face to face with you, as the years roll on, I fully realize the changes that are constantly occurring.

During that time the hand of death has cut a wide swath in this community, but it would be invidious in me to mention names, for the roll is a long one, of those who during that time have been prominent participators in town affairs—have passed away, joining the silent majority upon the other side.

Many of those who are now active participants in public affairs were then mere boys, while some were unborn. Nothing brings to me a greater realization of these changes than the fact, that as I stand here, I note new faces, and am frequently compelled to

inquire the name of some one who arises to address you, and I find that even our Town Clerk, Mr. Bates, who for nineteen years has stood with me in this desk and served you so faithfully and well, is at a loss to help me out of my difficulty.

This position is an honorable as well as a responsible one, and no one can fill it and faithfully perform its duties without being subjected to criticism.

The Moderator, either in his rulings or the appointment of committees, is frequently compelled to go counter to the wishes of his best and warmest friends.

It is said that to err is human, while to forgive is divine, and during my long occupancy of this place undoubtedly I have erred, but my errors have been those of judgment rather than design, for in the discharge of the responsible duties devolving upon me, it has been my honest endeavor, without favor, to adhere to the strict rules of parliamentary practice, as I understood them, and it is gratifying to me to know that in all the important matters considered during this long period, no decision that I have been called upon to render has been overruled.

Actively interested as I have always been in the affairs of the town, I feel that I have made some warm friends, while I am conscious also that I have made some enemies, otherwise I should feel that I had failed in the faithful performance of duty.

During all these years I have been intrusted with the appointment of your committees having charge of your public improvements, your committee on appropriations, and all special committees, involving during the time among other matters, the reorganization of your Fire Department, erection of your Soldiers' Monument, the establishment of your Public Library, the erection of schoolhouses and other public buildings, your Water Supply, Centennial Celebration, Electric Lighting, Sewerage, as well as others of a minor nature.

It is a source of deep gratification to me, that during the many bitter contests that have occurred in these years, even during the long and bitter strife connected with the water controversy, extending through a period of more than five years, a controversy that sundered the friendly relations of a lifetime, that I so far retained the confidence of my fellow citizens, that each year I was elected to this position, without opposition.

For their long and continued confidence and support, I desire to express to my fellow citizens my sincere and grateful thanks, and to say, that with the adjournment of this meeting, I do not propose to be again a candidate for the position, assuring you,

however, that although I may take a less active part in public affairs, I shall still retain an abiding interest in everything that pertains to the welfare, prosperity, growth and honor of the old town of Braintree.

On motion of T. Haven Dearing it was voted unanimously that the thanks of the town be and are hereby extended to Hon. F. A. Hobart for his long and faithful service as Moderator, and that this vote be entered upon the records.

Voted to adjourn to eight and one half o'clock P. M.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, April 3, 1893.

The meeting was called to order by the Moderator in accordance with the adjournment.

Voted to adjourn to nine and one-fourth o'clock this evening.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, April 3, 1893.

The meeting was called to order by the Moderator in accordance with the adjournment.

Voted to adjourn to nine and one half o'clock this evening.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, April 3, 1893.

The meeting was called to order by the moderator, in accordance with the adjournment.

Voted to adjourn to Monday, April 10, 1893, at 7.45 P.M.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, April 10, 1893.

The meeting was called to order by the Moderator in accordance with the adjournment.

ART. 5 was laid on the table.

ART. 40. Sewerage Committee made an oral report and it was voted that the same committee be continued and they perform the duty originally assigned them, and that the \$800 be re-appropriated. H. M. White declined to serve any longer on the Committee and William A. Kane was chosen to fill the vacancy.

ART. 15. Voted to appropriate the sum of \$150 in addition to the sum appropriated for the publication of the proceedings of the 250th anniversary of its incorporation.

ART. 11. Voted that all taxes assessed the current year shall be payable on or before the first day of December, 1893, and on all taxes not paid on or before said first day of December, interest at the rate of six per centum per annum shall be charged and collected from the said first day of December until the tax is paid; and that the Collector is required after the first day of February, 1894, to exert all the power vested in him by law for the collection of all unpaid taxes.

ART. 2. Voted to accept the report of the several town officers.

ART. 19. Voted to refer this article to the Water Commissioners with full powers.

ART. 23. Voted to authorize the Selectmen to convey to General Sylvanus Thayer Post, G. A. R., lots No. 1, 2, 3 and 4 in Plain street Cemetery for their use as a Soldiers' burial lot.

ART. 24. Voted, That the town amend Section 1 of Article 4 of the By-Laws by making the first day of January, instead of the first day of February, the beginning of the financial year.

Ansel O. Clark was appointed a committee to present this amendment to the Court for its approval.

ART. 26 was referred to the Board of Health to make investigation, and report to the town.

ART. 8. Voted, That \$2000 be appropriated for the payment

of interest on town debt, in addition to the sum already appropriated.

Voted, That the collection of taxes be let out to the lowest bidder. Nathaniel F. Hunt agreed to collect the taxes for four and five-tenths mills on the dollar, and he was elected Collector of Taxes for the ensuing year; and sworn by the Town Clerk.

Voted, That so much of the Bank and Corporation tax to the amount of \$8000 be applied to the payment of the foregoing appropriations.

Voted, To raise by taxation the sum of \$70,330.

ART. 30 was indefinitely postponed.

ART. 32 was indefinitely postponed.

ART. 38 was referred to the Board of Selectmen with instruction to report at the earliest practicable moment, at some future meeting.

Voted, To pay Francis A. Hobart the sum of \$25 for his services as Moderator.

Voted to adjourn sine die.

SAMUEL A. BATES,
Town Clerk.

NORFOLK, ss.

To either of the constables of the town of Braintree,

GREETING :

In the name of the Commonwealth of Massachusetts you are hereby required to notify and warn the inhabitants of the town of Braintree, qualified to vote in town affairs, to meet at the Town Hall in said Braintree, on Monday, the third day of April, 1893, at eight o'clock in the evening, to act on the following articles, namely :

ARTICLE 1.—To choose a Moderator to preside at said meeting.

ART. 2.—To see if the town will amend the vote passed on the eleventh day of January, 1893, in relation to the issuance of electric lighting bonds, so that the bonds may mature in twenty-four years from the date of issue, and so that the amount

to be raised shall be \$16,500 instead of \$16,600, as voted on the above date.

ART. 3.—To see if the town will elect a Board of Commissioners of Sinking Funds.

ART. 4.—To hear the report of the committee appointed at the town meeting of March 13th to investigate the needs for additional schoolhouse facilities in the east section of the town.

ART. 5.—To see if the town will select a location for a schoolhouse in the east section of the town.

ART. 6.—To see if the town will vote to raise and appropriate the sum of \$32,000 for the erection of a schoolhouse and the purchase of a lot of land for the location of the same in the east section of the town, and also to determine the method of raising said money.

ART. 7.—To see if the town will appoint a Building Committee and give the same full power to transact all business pertaining to the purchase of the land and construction of the schoolhouse authorized by Article 6.

You are to give notice of this meeting by posting up true and attested copies of this Warrant in not less than nine public places in this town, seven days at least before the time of said meeting, and by publishing once in the Braintree Reporter.

Hereof fail not and make return of this Warrant, with your doings thereon, to the Town Clerk before the time of said meeting.

Given under our hands at Braintree this twenty-fourth day of March in the year of our Lord one thousand eight hundred and ninety-three.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,

Selectmen of Braintree.

BRAINTREE, April 3, 1893.

In accordance with the foregoing warrant, the meeting was called to order, and the warrant read by the Town Clerk.

The Moderator appointed Ansel O. Clark to check the list, and he was sworn.

Upon ballot, by the use of the check-list, Francis A. Hobart was elected Moderator, and sworn by the Town Clerk.

ART. 2 taken up.

Voted that so much of the vote of the town, relating to the issuance of electric lighting bonds, passed Jan. 11, 1893, as relates to the amount raised by bonds and the time of their maturity, be reconsidered.

Voted that the total amount of the bonds to be issued under authority of Chap. 370 of the Acts of the Legislature of 1891, and by vote of the town passed Jan. 11, 1893, be \$16,500 instead of \$16,600, and the time of their maturity be 24 years from date of issue, instead of 15 years, as voted at said meeting of Jan. 11, 1893.

ART. 3 taken up.

Voted to adjourn to this evening at 8.31.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, April 3, 1893.

The meeting was called to order by the Moderator, in accordance with the adjournment.

ART. 3 was in order.

Voted to proceed to ballot for three Commissioners of Sinking Funds—one to serve for three years, one to serve for two years, and one to serve for one year, all in one ballot.

The Moderator announced the result of the ballot as follows, namely :

Sinking Funds Commissioner for 3 years — John V. Scollard,

3; T. Haven Dearing, 2; Willie H. Shaw, 1; Francis A. Hobart, 1; and John V. Scollard was declared elected. For 2 years—John V. Scollard 2; James T. Stevens, 2; T. Haven Dearing, 1; H. B. Woodsum, 1; George H. Arnold, 1; and there was no choice. For one year—James T. Stevens, 3; T. Haven Dearing, 2; A. H. Mason, 1; Charles G. Sheppard, 1; and James T. Stevens was declared elected.

Voted to proceed to ballot for Sinking Fund Commissioner for two years. The Moderator announced the result of the ballot as follows, namely:

T. Haven Dearing, 20; Francis A. Hobart, 2; D. A. Brooks, 2; and T. Haven Dearing was declared elected.

ART. 4 taken up.

The Committee appointed to investigate the needs for additional schoolhouse facilities in the east part of the town made the following report, namely:

REPORT OF THE SCHOOLHOUSE COMMITTEE.

BRAINTREE, March 29, 1893.

The Committee appointed at the town meeting of March 13 respectfully submits the following report:

We find that one of two things will have to be done in the East section immediately. Either several thousand dollars must be spent in remodelling the Iron Works School and in putting in new heating and ventilating apparatus, or a new schoolhouse must be built.

In our opinion it is not advisable to spend any money on the present building, for when the defects of heating and ventilation are remedied, it will still be too small for the present number of pupils, and its situation close to the railroad will be as objectionable as ever.

By far the most sensible plan will be to build an eight-room schoolhouse in some central location and close both the Iron Works and East Schools into it. It is only a question of a short time before the East schoolhouse, if continued in use, will have to have new heating and ventilating apparatus. A new building will obviate any necessity for outlay either on the Iron Works or

East schoolhouses and part of the cost of the new building can be recovered by selling the old buildings.

As to the size of the new schoolhouse, we are of the opinion that it should contain at least eight class rooms, as that number is necessary to allow for future growth and for a perfect grading of the classes. Besides these eight rooms there should be at least four smaller rooms for recitation rooms and the various purposes for which such rooms are always needed. The upper floor can be finished as a single large room for school exhibitions, singing and other exercises.

On careful inquiry, we find that the cost of such a building, including architect's fees, the most modern heating and ventilating system and sanitary appliances, and furniture will be \$29,000, and we recommend the appropriation of that sum for the purpose of building such a schoolhouse.

Regarding a location, we are unanimous in recommending the lot on the corner of Liberty and Commercial streets, belonging to Mrs. Martha B. Loud and known as the Jonas Perkins homestead lot.

It has all the advantages that can possibly be required for school purposes. It is high, well drained and sunny. It is amply large for a playground.

The lot measures about 275 feet on Commercial street, 212 feet on Liberty street and about 300 feet on its easterly boundary. It contains a little more than one and three-quarters acres.

Mrs. Loud will sell it to the town for two thousand dollars, which is about $2\frac{1}{2}$ cents per square foot.

This is a very reasonable price and one that the town should not hesitate to accept.

We recommend the appropriation of \$2,000 for the purpose of purchasing this land for a location for the new schoolhouse.

THOS. A. WATSON,
DANIEL POTTER,
GEO. D. WILLIS,
JOSEPHUS SAMPSON.

Voted that the foregoing report be accepted.

ART. 5 taken up.

Voted that the town purchase the lot of land on the corner of Liberty and Commercial streets, belonging to Mrs. Martha B. Loud, and known as the Jonas Perkins homestead lot, as the

location for a schoolhouse in the east section of the town. Adjourned to 9.16 P.M.

ART. 6 taken up.

Voted to appropriate the sum of \$31,000 for the purchase of land and erection of a schoolhouse in the east section of the town.

Voted that the town treasurer be and hereby is, authorized and instructed under the direction of the Board of Selectmen to issue notes of the town for the aggregate sum of \$31,000 for the purpose of building a schoolhouse and for the purchase of land for the location of the same. Each of said notes to be in face value, \$3100, to run 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 years respectively, and to bear interest at the rate of not more than five per cent. per annum; and that the Selectmen be intructed to raise by taxation each year beginning in 1894 the sum of \$3100 for the purpose of paying the note falling due, together with a sum sufficient to pay the accrued interest on all of the said notes remaining unpaid until all of said notes are liquidated.

Voted that Thomas A. Watson, Daniel Potter, George D. Willis, Josephus Sampson and Alva S. Morrison be a committee with full power to carry into effect the above votes as to the purchase of the land and the building of the school-house.

Voted to adjourn.

SAMUEL A. BATES,
Town Clerk.

NORFOLK, ss. To either of the constables of the town of Braintree,

GREETING :

In the name of the Commonwealth of Massachusetts, you are hereby required to notify and warn the inhabitants of the town of Braintree, qualified to vote in town affairs, to meet at the Town Hall in said Braintree, on Friday, the twentieth day of October, 1893, at 7.45 o'clock in the evening, to act on the following articles, namely :

ARTICLE 1.—To choose a Moderator to preside at said meeting.

ART. 2.—To see if the town will reinstruct the Building Com-

mittee to proceed with the construction of a new schoolhouse in East Braintree, as voted at the last annual meeting.

ART. 3.—To see if the town will accept the laying out as town ways, Fountain and Boscobel streets, as made by the Selectmen, and appropriate a sum of money therefor.

ART. 4.—To see if the town will accept the laying out as a town way, the new road leading from Holbrook avenue to Union street, crossing land of Asa French, as made by the Selectmen, and appropriate a sum of money therefor.

ART. 5.—To choose any Committee, or hear the report of any Committee, and act thereon.

You are to give notice of this meeting by posting up true and attested copies of this warrant in not less than nine public places in this town, seven days at least before the time of said meeting, and by publishing once in both of the local newspapers.

Hereof fail not, and make return of this warrant with your doings thereon to the Town Clerk before the time of said meeting.

Given under our hands at Braintree, this eleventh day of October, in the year of our Lord one thousand eight hundred and ninety-three.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,
Selectmen of Braintree.

A true copy, Attest:

HORACE FAXON,
Constable of Braintree.

NORFOLK, ss.

BRAINTREE, October 13, 1893.

Pursuant to the foregoing warrant, I hereby notify and warn the inhabitants of the town of Braintree, qualified as herein ex-

pressed, to meet at the time and place and for the purposes herein named.

HORACE FAXON,
Constable of Braintree.

BRAINTREE, Oct. 20, 1893.

In accordance with the foregoing warrant, the meeting was called to order and the warrant read by the Town Clerk.

Charles G. Sheppard was chosen Moderator by ballot, and sworn by the Town Clerk.

ART. 5. Daniel Potter made an oral report of the committee on building a school-house in the east section of the town.

ART. 2 taken up.

Voted that the School Building Committee be instructed to proceed to the erection of a school building in the east part of the town according to their previous instructions, whenever the money can be procured on the terms provided for in the appropriation; and to have it in condition for use by September, 1894.

ART. 3 taken up.

Voted to accept the laying out as town ways of Fountain and Boscobel streets, and that the sum of \$250 be appropriated to build the same.

ART. 4. Voted to accept the laying-out as a town way the new road leading from Holbrook avenue to Union street, crossing land of Asa French, and that the sum of \$300 be appropriated to build the same.

Voted to adjourn.

SAMUEL A. BATES,
Town Clerk.

NORFOLK, ss. To either of the Constables of the Town of Braintree,

GREETING :

In the name of the Commonwealth of Massachusetts, you are

hereby required to notify and warn the inhabitants of the Town of Braintree, qualified to vote in elections, to meet at the Town Hall in said Braintree, on Tuesday, the seventh day of November, 1893, at six o'clock in the forenoon, to bring in their votes to the Selectmen, for

Governor of the Commonwealth,
 Lieutenant Governor,
 Secretary of the Commonwealth,
 Treasurer and Receiver-General,
 Auditor and Attorney-General of the Commonwealth,
 Councillor for the Second Councillor District,
 One County Commissioner for the County of Norfolk,
 Register of Probate and Insolvency,
 Senator for the First Norfolk Senatorial District, and

One Representative to the General Court for District No. 6 of the County of Norfolk,

Also to vote "Yes" or "No" on the following article of amendment to the Constitution, viz. :—Shall the proposed amendment to the Constitution relative to the mileage to members of the General Court, be approved and ratified? All of the above votes to be one ballot.

The polls shall be kept open until one o'clock P. M.

You are directed to serve this warrant, by posting up attested copies thereof in not less than nine public places in this town, seven days at least before the time of said meeting, and by publishing once in the Braintree Reporter.

Hereof fail not and make return of this warrant with your doings thereon to the Selectmen before the time of said meeting.

Given under our hands at Braintree, this twenty-seventh day of

October, in the year of our Lord one thousand eight hundred and ninety-three.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,

Selectmen of Braintree.

A true copy, Attest:

HORACE FAXON,

Constable of Braintree.

NORFOLK, ss.

BRAINTREE, Oct. 28, 1893.

Pursuant to the foregoing warrant, I hereby notify and warn the inhabitants of the town of Braintree, qualified as herein expressed, to meet at the time and place for the purposes herein named.

HORACE FAXON,

Constable of Braintree.

BRAINTREE, Nov. 7, 1893.

In accordance with the foregoing warrant, the meeting was called to order and the warrant read by Ansel O. Clark, Chairman of the Board of Selectmen.

William A. Kane and Richard L. Arnold, having been appointed inspectors; Brainard T. Dyer and Edward J. Thomas, deputy inspectors; L. Willard Morrison, Willie H. Shaw, George S. Boyer and Albert E. Avery, tellers, by the selectmen, were sworn by the Town Clerk.

The polls were declared open at four minutes past six A. M.

Voted that the polls be declared closed at 2 hours 25 minutes P. M., and at that time they were declared closed.

At the close of the counting the presiding officer announced that 898 ballots had been deposited in the ballot-box, and that they were for the following persons, namely:

GOVERNOR.

Louis Albert Banks of Hyde Park, Pro.	7
George H. Cary of Lynn, P. P.	20
Frederic T. Greenhalge of Lowell, Rep.	486
Patrick F. O'Neil of Boston, S. L.	0
John E. Russell of Leicester, Dem.	365
Blanks	20
Total	898

LIEUTENANT GOVERNOR.

James B. Carroll of Springfield, Dem.	335
Joseph K. Harris of Haverhill, P. P.	24
Morris E. Ruther of Holyoke, S. L.	0
Henry C. Smith of Williamsburg, Pro.	8
Roger Wolcott of Boston, Rep.	498
Blanks	33
Total	898

SECRETARY.

James W. McDonald of Marlborough, Dem.	308
Frederic A. Nagles of West Springfield, S. L.	0
William M. Olin of Boston, Rep.	496
Samuel B. Shapleigh of Boston, Pro.	8
Isaac W. Skinner of Waltham, P. P.	27
Blanks	59
Total	898

TREASURER.

Wilbert D. Farnham of Somerville, Pro.	6
Henry M. Phillips of Springfield, Rep.	459
Squire E. Putney of Somerville, S. L.	1
Eben S. Stevens of Dudley, Dem.	289
Thomas A. Watson of Braintree, P. P.	95
Blanks	48
Total	898

AUDITOR.

Alfred H. Evans of Ashburnham, Pro.	.	.	.	9
Boardman Hall of Boston, Dem.	.	.	.	315
John W. Kimball of Fitchburg, Rep.	.	.	.	481
Hermann J. Koepke of Pittsfield, S. L.	.	.	.	0
Maurice W. Landers of Pittsfield, P. P.	.	.	.	27
C. M. Lothrop	.	.	.	1
Blanks	.	.	.	65
				<hr/>
Total	.	.	.	898

ATTORNEY GENERAL.

Hosea M. Knowlton of New Bedford, Rep.	.	.	.	497
Charles S. Lilley of Lowell, Dem.	.	.	.	304
Daniel Lynch of Boston, S. L.	.	.	.	4
Robert F. Raymond of New Bedford, Pro.	.	.	.	6
Conrad Reno of Boston, P. P.	.	.	.	27
Blanks	.	.	.	70
				<hr/>
Total	.	.	.	898

COUNCILLOR.

(Second District).

William Moore of Walpole, Dem.	.	.	.	328
Cyrus Savage of Taunton, Rep.	.	.	.	484
Blanks	.	.	.	86
				<hr/>
Totals	,	.	.	898

REGISTER OF PROBATE AND INSOLVENCY.

(Norfolk County).

Jonathan Cobb of Dedham, Rep. Dem.	.	.	.	650
Blanks	.	.	.	248
				<hr/>
Total	.	.	.	898

COUNTY COMMISSIONER.

(Norfolk County).

Watts H. Bowker of Brookline, Rep.	481
Elliot C. Lee of Brookline, Dem.	322
Blanks	95
Total	898

SENATOR.

(First Norfolk District).

John F. Merrill of Quincy. Rep.	459
Frederick W. Whitcomb of Holbrook, Dem.	377
Blanks	62
Total	898

REPRESENTATIVE IN GENERAL COURT.

(Sixth Norfolk District.)

Andrew J. Bates of Braintree, Dem.,	396
John Kelley of Braintree, Rep.,	471
A. A. Ellsworth,	1
Blanks	30
Total	898

Shall the proposed amendment to the constitution relative to the payment of Mileage to Members of the General Court be approved and ratified?

Yes	223
No	173
Blanks	502
Total	898

The returns were then signed and sealed; the ballots sealed according to law, and delivered to the Town Clerk; and the check-lists sealed and delivered to the Selectmen.

Voted to adjourn sine die at 4.22 P.M.

SAMUEL A. BATES,
Town Clerk.

BRAINTREE, Nov. 17, 1893.

The Town Clerk of Braintree was at the Town House in Braintree at 12 o'clock M., but there being no quorum present, he adjourned to Monday, Nov. 20, 1893, at 9 o'clock, A.M.

SAMUEL A. BATES,

Town Clerk of Braintree.

BRAINTREE, Nov. 20, 1893.

The Town Clerks of Braintree and Holbrook met agreeably to adjournment and opened the returns for Representative in the General Court for District No 6, County of Norfolk, and found that John Kelly of Braintree had 704 votes; Andrew J. Bates had 653 votes; A. A. Ellsworth had 1 vote; blanks, 51. Total number of votes, 1409.

John Kelley of Braintree was declared elected, and the necessary certificates were signed and delivered to the Constable.

Voted to adjourn sine die.

SAMUEL A. BATES.

Town Clerk of Braintree.

NORFOLK, ss. To either of the Constables of the Town of Braintree,
GREETING:

In the name of the Commonwealth of Massachusetts, you are hereby required to notify and warn the inhabitants of the Town of Braintree, qualified to vote in town affairs, to meet at the Town Hall in said Braintree, on Tuesday, the 28th day of November, 1893, at 8 o'clock in the evening, to act upon the following articles namely:

ART. 1. To choose a Moderator to preside at said meeting.

ART. 2. To see if the Town will instruct the Board of Selectmen to have the Town Hall wired for electric light, and appropriate the sum of \$300 to defray the expenses of the same.

ART. 3. To see if the Town will make an appropriation for the

purpose of defraying the expense in connecting residences with the electric lighting system.

ART. 4. To hear the report of the Board of Selectmen upon the mill damage suits of Stevens & Willis, and the estate of Sarah W. Glover, and act thereon.

ART. 5. To see if the Town will instruct the Board of Selectmen to appoint six special policemen for night duty, two for each section of the town, and to take such other action in regard to the protection of property and maintenance of order as may be deemed expedient for the interest of the town.

ART. 6. To appropriate the necessary funds to carry out the vote of the town in reference to police service.

You are to give notice of this meeting by posting true and attested copies of this warrant in not less than nine public places in this town, seven days at least before the time of said meeting, and by publishing once in the Braintree Reporter.

Hereof fail not and make return of this warrant with your doings thereon to the Town Clerk before the time of said meeting. Given under our hands at Braintree, this twentieth day of November, in the year of our Lord one thousand eight hundred and ninety-three.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,
Board of Selectmen of Braintree.

A true copy. Attest: HORACE FAXON,
Constable of Braintree.

NORFOLK, ss.

BRAINTREE, Nov. 21, 1893.

Pursuant to the foregoing warrant, I hereby notify and warn the inhabitants of the town of Braintree, qualified as herein expressed, to meet at the time and place for the purposes herein named.

HORACE FAXON,
Constable of Braintree.

BRAINTREE, Nov. 28, 1893.

In accordance with the foregoing warrant, the meeting was called to order and the warrant read by the Town Clerk.

Upon ballot, George H. Arnold was chosen Moderator, and sworn by the Town Clerk.

ART. 2. Voted that the Selectmen be hereby instructed to have the Town Hall wired for electric light, and that we appropriate the sum of \$300 to defray the expense of the same.

ART. 3. Voted that the sum of \$1,300, and the receipts from electric lighting for the current year, be appropriated for the purpose of connecting houses and stores to the electric light system.

ART. 4. Ansel O. Clark, Chairman of the Board of Selectmen, made an oral report, and it was voted that the matter of the mill damage suits of Stevens & Willis and the estate of Sarah W. Glover be referred to the Selectmen, with instructions to settle in the best manner possible.

ART. 5. Voted that the street lights be kept burning throughout the night.

Voted that a committee of safety consisting of six from each part of the town, and the chair added to the same, be appointed by the chair to consult and confer with the Selectmen in regard to the subject matter of Art. 5 of the warrant of this meeting. Said committee and the Selectmen to have full power to take such action as they may deem necessary. Said committee to serve without pay.

ART. 6. Voted that the sum of \$600 be appropriated to carry out the vote of the town in reference to police service.

Chair appointed T. H. Dearing, J. R. Qualey, John Cavanagh, E. E. Abercrombie, J. Sampson, Richard H. Long, F. A. Hobart, J. T. Stevens, H. M. White, A. R. French, Brainard T. Dyer, Daniel E. Cain, F. R. Smith, J. A. Reynolds, H. M. Storm, C. G. Sheppard, John Kelley, and J. W. West for the above committee.

Voted to adjourn.

SAMUEL A. BATES,
Town Clerk.

WARRANT FOR
THE ANNUAL TOWN MEETING, 1894.

NORFOLK, ss. To either of the Constables of the town of
Braintree, GREETING :

In the name of the Commonwealth of Massachusetts you are hereby required to notify and warn the inhabitants of the town of Braintree, qualified to vote in town affairs to meet at the Town Hall in said Braintree on Monday, the fifth day of March, 1894, at seven o'clock in the forenoon to act on the following Articles, namely :

ART. 1.—To choose a Moderator to preside at said meeting.

ART. 2.—To hear the report of the several town officers and act thereon.

ART. 3.—To determine the manner of repairing the highways and bridges the ensuing year.

ART. 4.—To choose all necessary town officers for the ensuing year, and also to vote on the following question, as required by Chapter 54 of the Acts of 1881, namely: " Shall licenses be granted for the sale of intoxicating liquors in this town?" (Under Article 4 the polls will be kept open until 2 o'clock P. M.)

ART. 5.—To see what action the town will take in relation to hiring money for any purpose.

ART. 6.—To raise and appropriate such sums of money as may be necessary to defray the expenses of the town for the ensuing year.

ART. 7.—To see if the town will accept the Jury List as made by the Selectmen.

ART. 8.—To see if the town will vote to charge interest on all unpaid taxes after a certain date.

ART. 9.—To see if the town will vote an appropriation of \$175, and pay the same to General Sylvanus Thayer Post 87, G. A. R., for the purpose of assisting them in defraying the expenses of memorial services.

ART. 10.—To see how the town will vote to pay the members of the fire department.

ART. 11.—To see if the town will vote a sum of money for hydrant service.

ART. 12.—To raise and appropriate a sum of money for the sinking fund established for the payment of the Water Bonds.

ART. 13.—To see if the town will appropriate a sum of money to convey pupils to and from the public schools.

ART. 14.—To see if the town will authorize the purchase of a new hose carriage for the north part of the town.

ART. 15.—To see if the town will vote to purchase new hose for the fire department, and appropriate \$500 for the same.

ART. 16.—To see if the town will vote to build hose towers on East and South Engine houses.

ART. 17.—To see if the town will vote to establish a system of fire alarm and appropriate money for the same.

ART. 18.—To see what action the town will take with reference to the continuance of the night police system.

ART. 19.—To see if the town will vote such sums of money as may be necessary to operate the street and house-lighting plants as recommended by the manager of electric lights, and to determine as to whether the street lights shall be run all night, or only until midnight.

ART. 20.—To see if the town will appropriate such sums of money as may be necessary for new heating, ventilating and sanitary arrangements for the Pond and Union schoolhouses, as recommended by the School Committee.

ART. 21.—To see if the town will accept the laying out of Harrison avenue as a town-way, as made by the Selectmen.

ART. 22.—To see if the town will accept the laying out of Hall avenue and Thayer place as town ways, as made by the Selectmen.

ART. 23.—To see if the town will accept the laying out of Lisle street as a town way, as made by the Selectmen.

ART. 24.—To see if the town will vote to extend the street lighting system to Elmwood Park, Eliott and Sterling streets and Walnut avenue; also to Spruce, Myrtle and Vine streets; also to the junction of West and Granite streets.

ART. 25.—To see if the town will accept Sect. 72 of Chap. 423 of the Acts of the Legislature, passed in 1890, and divide the town into voting precincts.

ART. 26.—To see if the town will vote to build a drain in Commercial street from Mill lane to the residence of Thomas Miller and appropriate money for the same.

ART. 27.—To see if the town will adopt some method of drainage in Franklin street and appropriate money therefor.

ART. 28.—To see if the town will appropriate the sum of \$500 for the completion of Elliot street.

ART. 29.—To see if the town will appropriate the sum of \$300 for the completion of Hobart street.

ART. 30.—To see if the town will appropriate the sum of three hundred dollars for the purpose of carting refuse matter to some public dumping place.

ART. 31.—To see if the town will vote to extend the water main on Liberty street to a point opposite the residence of Mr. James Ryan, and appropriate money therefor.

ART. 32.—To see if the town will vote to instruct the engineer of the fire department to appoint none but citizens of this town to membership in the department.

You are to give notice of this meeting by posting up true and attested copies of this warrant in not less than nine public places in this town seven days at least before the time of said meeting, and by publishing once in the Braintree Reporter.

Hereof fail not and make return of this warrant with your doings thereon to the Town Clerk before the time of said meeting.

Given under our hands at Braintree, this eighth day of February, in the year of our Lord, one thousand eight hundred and ninety-four.

ANSEL O. CLARK,
J. FRANKLIN BATES,
JOHN V. SCOLLARD,

Selectmen of Braintree.

JURY LIST.

AS MADE BY THE SELECTMEN OF BRAINTREE FEBRUARY 1, 1894

William Allen,
 Richard L. Arnold,
 J. Sargent Arnold,
 Franklin E. Arnold,
 Stafford S. Bridgham,
 Andrew J. Bates,
 Charles S. Bates,
 Charles A. Belcher,
 William H. H. Bailey,
 J. Franklin Bates,
 William H. Cuffe,
 Brainard T. Dyer,
 Thomas R. Fitch,
 George G. French,
 George F. Fuller,
 Henry Gardner,
 Edward E. Hayward,
 Edward A. Hale,
 Elijah C. Hall,
 Thomas W. Herrick,
 J. Samuel Hill,
 Jonathan P. Hayward,
 Ellis Hollingsworth,
 Edward W. Hobart,
 Charles A. Hobart,
 Adam W. Hobart,
 William A. Hollis,
 Aubrey Hilliard,

Michael McDermott,
 Lyman W. Morrison,
 John N. McDowell,
 Augustus McRae,
 Charles O. Miller,
 George W. Osgood,
 F. Alton Oliver,
 Edward O. Pierson,
 Elbridge F. Porter,
 Daniel Potter,
 John Reed,
 Charles G. Richards,
 James A. Reynolds,
 John V. Scollard,
 Arthur J. Shaw,
 Martin V. B. Shaw,
 Richard M. Sanborn,
 Charles G. Sheppard,
 Frank A. Smith,
 Edward J. Thomas,
 Caleb Thompson,
 Foster F. Tupper,
 William A. Tupper,
 Amasa S. Thayer,
 Henry H. Thayer,
 David H. B. Thayer,
 Alden A. Thorndike,
 G. Henry Tuttle,

Nathaniel F. Hunt,
Bradford Y. Knight,
William A. Kane,
James D. Leatherbee,
Frederic P. Lothrop,
Charles H. Loring,
Emor H. Mathewson,
Henry A. Monk,

Henry B. Vinton,
Jonathan F. White,
Ezra H. Waite,
John Whitty,
Edward M. Wight,
Henry B. Whitman,
Whitfield Witherell,

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